Service
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Service Manual

Horizontal Frequency
30-83 KHz

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SAFETY NOTICE

ANY PERSON ATTEMPTING TO SERVICE THIS CHASSIS MUST FAMILIARIZE HIMSELF WITH THE CHASSIS AND BE AWARE OF THE NECESSARY SAFETY PRECAUTIONS TO BE USED WHEN SERVICING ELECTRONIC EQUIPMENT CONTAINING HIGH VOLTAGES.

CAUTION: USE A SEPARATE ISOLATION TRANSFOMER FOR THIS UNIT WHEN SERVICING

Revision List

Version	Release Date	Revision History	L&T Model Name
A00	Dec.-22-2010	Initial release	HIAJNZ2FZ3UHHNF.LF
			HIAJNZ2MZ35AHNF.LF
A01	Jan.-21.2011	Add new model	HIAJNZ2LZ33ADNF.LF
A02	Jan.-31.2011	Add new models	HIAJNZ2MZ35ADNF.LF
			HIAJNZ2FZ3UHDNF.LF
A03	Feb.-14.2011	Add new model	HIAJNZ2TZ31RDNF.LF
A04	Mar.-25.2011	Add new model	HIAJNZ2JZ34ADNF.LF
A05	Apr.-15.2011	Add new model Update new panel(LM215WF4-TRC2)	HIBJNZ2CZ3RA3NF.LF
A06	Sep.-11.2011	Add new model	HIAJNR2BZ3K5DNF.LF
A07	Nov.-7-2011	Add new model	HIAJNZ2FZ3UMHNF.LF
A08	Jan-30-2012	Add new model	HIAJNZ2CZ3A6CNF.LF
			HIAJNZ2CZ3A6CNF.PA
			HIAJNZ2CZ3AODNF.LF
			HIAJNZ2MZ3RLDNF.LF
A09	Feb-19-2012	Add new model	HIAJNR2BZ3K2DNF.LF
A10	JUN-24-2012	Add new model	HICJNR2BZ3K2DNF.LF
			HICJNZ2CZ3AODNF.LF

Important Safety Notice

Proper service and repair is important to the safe, reliable operation of all AOC Company Equipment. The service procedures recommended by AOC and described in this service manual are effective methods of performing service operations. Some of these service operations require the use of tools specially designed for the purpose. The special tools should be used when and as recommended.

It is important to note that this manual contains various CAUTIONS and NOTICES which should be carefully read in order to minimize the risk of personal injury to service personnel. The possibility exists that improper service methods may damage the equipment. It is also important to understand that these CAUTIONS and NOTICES ARE NOT EXHAUSTIVE. AOC could not possibly know, evaluate and advise the service trade of all conceivable ways in which service might be done or of the possible hazardous consequences of each way. Consequently, AOC has not undertaken any such broad evaluation. Accordingly, a servicer who uses a service procedure or tool which is not recommended by AOC must first satisfy himself thoroughly that neither his safety nor the safe operation of the equipment will be jeopardized by the service method selected.
Hereafter throughout this manual, AOC Company will be referred to as AOC.

WARNING

Use of substitute replacement parts, which do not have the same, specified safety characteristics may create shock, fire, or other hazards.

Under no circumstances should the original design be modified or altered without written permission from AOC. AOC assumes no liability, express or implied, arising out of any unauthorized modification of design.
Servicer assumes all liability.

FOR PRODUCTS CONTAINING LASER:
DANGER-Invisible laser radiation when open AVOID DIRECT EXPOSURE TO BEAM.
CAUTION-Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.
CAUTION -The use of optical instruments with this product will increase eye hazard.

TO ENSURE THE CONTINUED RELIABILITY OF THIS PRODUCT, USE ONLY ORIGINAL MANUFACTURER'S REPLACEMENT PARTS, WHICH ARE LISTED WITH THEIR PART NUMBERS IN THE PARTS LIST SECTION OF THIS SERVICE MANUAL.
Take care during handling the LCD module with backlight unit
-Must mount the module using mounting holes arranged in four corners.
-Do not press on the panel, edge of the frame strongly or electric shock as this will result in damage to the screen.
-Do not scratch or press on the panel with any sharp objects, such as pencil or pen as this may result in damage to the panel.
-Protect the module from the ESD as it may damage the electronic circuit (C-MOS).
-Make certain that treatment person’s body is grounded through wristband.
-Do not leave the module in high temperature and in areas of high humidity for a long time.
-Avoid contact with water as it may a short circuit within the module.
-If the surface of panel becomes dirty, please wipe it off with a soft material. (Cleaning with a dirty or rough cloth may damage the panel.)

1. Monitor Specifications

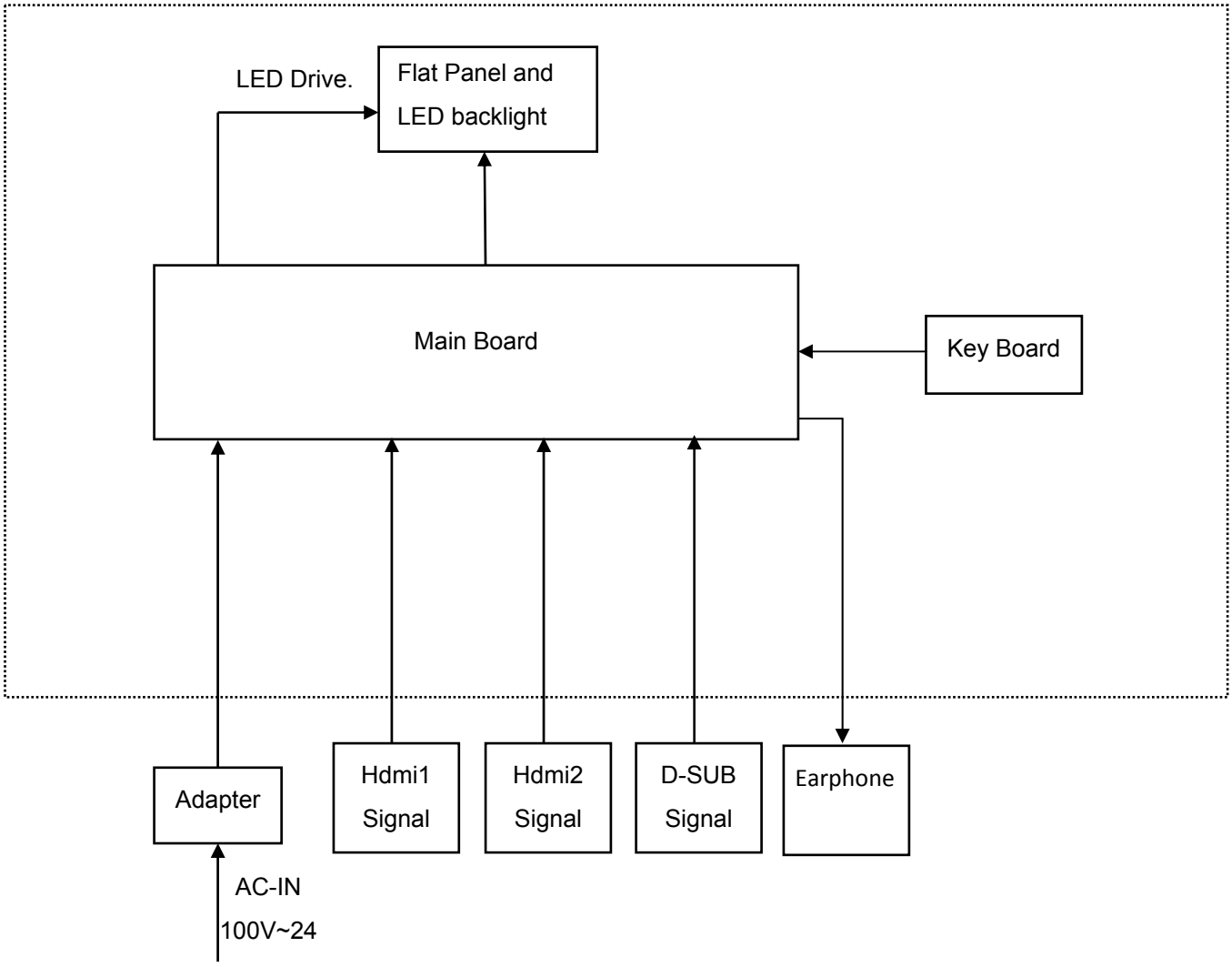
Panel	Model number	e2243Fw2 /e2243Fw2k
	Driving system	TFT Color LED
	Viewable Image Size	54.686cm diagoanl
	Pixel pitch	0.248mm(H) x 0.248mm(V)
	Video	R, G, B Analog Interface & Digital Interface
	Separate Sync.	H/V TTL
	Display Color	16.7M Colors
	Dot Clock	148.5 MHz
Resolution	Horizontal scan range	30 kHz - 83 kHz
	Horizontal scan Size(Maximum)	476.6mm
	Vertical scan range	55 Hz - 75 Hz
	Vertical scan Size(Maximum)	268.1mm
	Optimal preset resolution	1920 x 1080 (60 Hz)
	Highest preset resolution	1920 x 1080 (60 Hz)
	Plug & Play	VESA DDC2B/CI
	Input Connector	D-Sub 15pin/HDMI
	Input Video Signal	Analog: 0.7Vp-p(standard), 75 OHM, Positive; HDMI ; TMDS
	Power Source	100~240VAC, 50/60Hz
	Power Consumption	Active < 25 W (Typical)
		Standby < 0.5 W
Physical Characteristics	Connector Type	15-pin Mini D-Sub, HDMI
	Signal Cable Type	Detachable
	Dimensions & Weight:	
	Height (with base)	388.6 mm
	Width	514.2 mm
	Depth	182 mm
	Weight (monitor only)	2.53 kg
Environmental	Temperature:	
	Operating	0°C to 40° C
	Non-Operating	-25°Cto 55°C
	Humidity:	
	Operating	10% to 85% (non-condensing)
	Non-Operating	5% to 93% (non-condensing)

	Altitude:	
	Operating	0~ 3,658m (0~ 12,000 ft)
	Non-Operating	0~ 12,192m (0~ 40,000 ft)

2. LCD Monitor Description

The LCD MONITOR will contain a main board and a key board which house the flat panel control logic, brightness control logic and DDC.

Monitor Block Diagram



3. Operating Instructions

3.1 General Instructions

Press the power button to turn the monitor on or off. The other control knobs are located at base of the monitor. By changing these settings, the picture can be adjusted to your personal preferences.

3.2 Control Buttons

Power

Press the Power button to turn 0n/off the monitor.

Eco Mode / <

Press the Eco key continuously to select the Eco mode of brightness when there is no OSD (Eco mode hot key may not be available in all models).

4:3 or wide image ratio / >

When there is no OSD and VGA input only, press hotkey continuously to change 4:3 or wide image ratio.(If the product screen size is 4:3 or input signal resolution is wide format, the hot key is disable to adjust and also only available for VGA input)

When HDMI input, press hotkey continuously to activate Volume, and press the Up or Down to change the setting, press Menu button for confirmation and exit OSD. This only available for HDMI input.

Auto/Source/Exit

When the OSD is closed, press Auto/Source/Exit button continuously about 2 second to do auto configure (only for the models with dual or more inputs).

When the OSD is closed, press Auto/Source/Exit button will be Source hot key function(Only for the models with dual or more inputs).Press Auto/Source/Exit button continuously to select the input source showed in the message bar, press Menu/Enter button to change to the source selected.

3.3 OSD Menu

1) Press the **MENU-button** to activate the OSD window.
2) Press **< or >** to navigate through the functions. Once the desired function is highlighted, press the **MENU-button** to activate sub-menu . Once the desired function is highlighted, press **MENU-button** to activate it.
3) Press **< or >** to change the settings of the selected function. Press **< or >** to select another function in sub-menu . Press **AUTO** to exit . If you want to adjust any other function, repeat steps 2-3.
4) OSD Lock Function: To lock the OSD, press and hold the **MENU button** while the monitor is off and then press **power button** to turn the monitor on. To un-lock the OSD - press and hold the **MENU button** while the monitor is off and then press **power button** to turn the monitor on.

Notes:
1) If the product has only one signal input, the item of "Input Select" is disable to adjust.
2) If the product screen size is 4:3 or input signal resolution is wide format, the item of "Image Ratio" is disable to adjust.
3) One of DCR, Color Boost, and Picture Boost functions is active, the other two function is turned off accordingly.

Luminance

1

Press (Menu) to display menu.

2

Press < or > to select (Luminance), and press to enter.

3

Press < or > to select submenu, press to enter, and press < or > to adjust.

4

Press to exit.

	Brightness	0-100		Backlight Adjustment
	Contrast	0-100		Contrast from Digital-register.
	Eco mode	Standard		Standard Mode
		Text		Text Mode
		Internet		Internet Mode
		Game		Game Mode
		Movie		Movie Mode
		Sports		Sports Mode
	Gamma	Gamma1		Adjust to Gamma1
		Gamma2		Adjust to Gamma 2
		Gamma3		Adjust to Gamma 3
	DCR	Off		Disable dynamic contrast ratio
		On		Enable dynamic contrast ratio

Image Setup

1

Press (Menu) to display menu.

2

Press ‹ or › to select (Image Setup), and press to enter.

3

Press ‹ or › to select submenu, press to enter, and press ‹ or › to adjust.

4

Press to exit.

	Clock	0-100	Adjust picture Clock to reduce Vertical-Line noise.
	Phase	0-100	Adjust Picture Phase to reduce Horizontal-Line noise
	H.Position	0-100	Adjust the horizontal position of the picture.
	V.Position	0-100	Adjust the vertical position of the picture.

Color Temperature

1

Press (Menu) to display menu.

2

Press < or > to select (Color Temperature), and press to enter.

3

Press < or > to select submenu, press to enter, and press < or > to adjust.

4

Press to exit.

	Warm	6500K	Recall Warm Color Temperature from EEPROM.
	Normal	7300K	Recall Normal Color Temperature from EEPROM.
	Cool	9300K	Recall Cool Color Temperature from EEPROM.
	sRGB		Recall SRGB Color Temperature from EEPROM.
	User	Red	Red Gain from Digital-register
		Green	Green Gain Digital-register.
		Blue	Blue Gain from Digital-register

Color Boost

Press (Menu) to display menu.

Press < or > to select (Color Boost), and press to enter.

Press < or > to select submenu, press to enter, and press < or > to adjust.

Press to exit.

	Full Enhance	on or off	Disable or Enable Full Enhance Mode
	Nature Skin	on or off	Disable or Enable Nature Skin Mode
	Green Field	on or off	Disable or Enable Green Field Mode
	Sky-blue	on or off	Disable or Enable Sky-blue Mode
	AutoDetect	on or off	Disable or Enable AutoDetect Mode
	Demo	on or off	Disable or Enable Demo

Picture Boost

Press (Menu) to display MENU.

Press < or > to select (Picture Boost); and press to enter.

Press < or > to select submenu, press to enter, and press < or > to adjust.

Press to exit.

	Frame Size	14-100	Adjust Frame Size
	Brightness	0-100	Adjust Frame Brightness
	Contrast	0-100	Adjust Frame Contrast
	H. position	0-100	Adjust Frame horizontal Position
	V.position	0-100	Adjust Frame vertical Position
	Bright Frame	on or off	Disable or Enable Bright Frame

OSD Setup

1

Press (Menu) to display menu.

2

Press < or > to select (OSD Setup), and press to enter.

3

Press < or > to select submenu, press to enter, and press < or > to adjust.

4

Press to exit.

	OSD Setup		
	H.Position	0-100	Adjust the horizontal position of OSD
	V.Position	0-100	Adjust the vertical position of OSD
	Timeout	5-120	Adjust the OSD Timeout
	Transparence	0-100	Adjust the transparence of OSD
	Language		Select the OSD language

Extra

1

Press (Menu) to display menu.

2

Press < or > to select (OSD Setup), and press to enter.

3

Press < or > to select submenu, press to enter, and press < or > to adjust.

4

Press to exit.

	Input Select	Auto	Select to Auto Detect input signal
		Analog	Select Analog Signal Source as Input
		HDMI 1/ HDMI 2	Select HDMI 1/ HDMI 2 Signal Source as Input
	Auto Config	yes or no	Auto adjust the picture to default
	Image Ratio	wide or 4:3	Select wide or 4:3 format for display
	DDC-CI	yes or no	Turn ON/OFF DDC-CI Support
	Off Timer	0~24hours	Select timing to turn off the monitor.
	Information		Show the information of the main image and sub-image source

Reset

1

Press (Menu) to display menu.

2

Press < or > to select (Reset), and press to enter.

3

Press < or > to select YES or NO.

4

Press to exit.

	Reset	yes or no	Reset the menu to default

Exit

1

Press (Menu) to display menu.

2

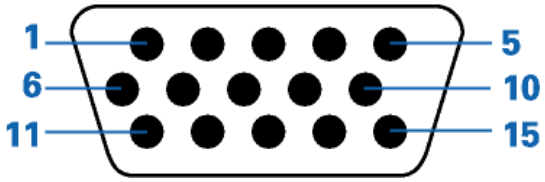
Press ‹ or › to select (Exit); and press to exit.

	Exit		Exit the main OSD

4. Input/Output Specification

4.1 Input Signal Connector

Analog connector



Pin Number	15-Pin Side of the Signal Cable
1	Video-Red
2	Video-Green
3	Video-Blue
4	N.C.
5	Detect Cable
6	GND-R
7	GND-G
8	GND-B
9	+5V
10	Ground
11	N.C.
12	DDC-Serial data
13	H-sync
14	V-sync
15	DDC-Serial clock

HDMI connector

Pin No.	Signal Name	Pin No.	Signal Name	Pin No.	Signal Name
1	TMDS Data 2+	9	TMDS Data 0	17	DDC/CEC Ground
2	TMDS Data 2 Shield	10	TMDS Clock +	18	+5V Power
3	TMDS Data 2	11	TMDS Clock Shield	19	Hot Plug Detect
4	TMDS Data 1+	12	TMDS Clock		
5	TMDS Data 1Shield	13	CEC		
6	TMDS Data 1	14	Reserved (N.C. on device		
7	TMDS Data 0+	15	SCL		
8	TMDS Data 0 Shield	16	SDA		

4.2 Factory Preset Display Modes

STAND	RESOLUTION	HORIZONTAL FREQUENCY(kHZ)	VERTICAL FREQUENCY(Hz)
VGA	640x480@60Hz	31.469	59.940
VGA	640x480@72Hz	37.861	72.809
VGA	640x480@75Hz	37.500	75.00
SVGA	800x600@56Hz	35.156	56.250
SVGA	800x600@60Hz	37.879	60.317
SVGA	800x600@72Hz	48.077	72.188
SVGA	800x600@75Hz	46.875	75.000
XGA	1024x768@60Hz	48.363	60.004
XGA	1024x768@70Hz	56.476	70.069
XGA	1024x768@75Hz	60.023	75.029
SXGA	1280x1024@60Hz	63.981	60.020
SXGA	1280x1024@75Hz	79.976	75.025
WXGA+	1440x900@60Hz	55.935	59.887
WXGA+	1440x900@60Hz	55.469	59.901
WSXGA	1680x1050@60Hz	65.290	59.954
	1680x1050@60Hz	64.674	59.883
WUXGA	1920x1080@60HZ	67.5	59.934

4.3 Panel Specification

4.3.1 General Features

LM215WF4-TRA(C)2 is a Color Active Matrix Liquid Crystal Display with an integral Light Emitting Diode (LED) backlight system. The matrix employs a-Si Thin Film Transistor as the active element. It is a transmissive type display operating in the normally white mode. It has a 21.5 inch diagonally measured active display area with Full HD resolution (1080 vertical by 1920 horizontal pixel array) Each pixel is divided into Red, Green and Blue sub-pixels or dots which are arranged in vertical stripes. Gray scale or the brightness of the sub-pixel color is determined with a 8-bit gray scale signal for each dot, thus, presenting a palette of more than 16,7M colors with Advanced-FRC(Frame Rate Control). It has been designed to apply the interface method that enables low power, high speed, low EMI. FPD Link or compatible must be used as a LVDS(Low Voltage Differential Signaling) chip. It is intended to support applications where thin thickness, wide viewing angle, low power are critical factors and graphic displays are important. In combination with the vertical arrangement of the sub-pixels, the LM215WF4-TRA2 characteristics provide an excellent flat panel display for office automation products such as monitors.

4.3.2 Display Characteristics

Active screen size	21.53 inches(546.86mm) diagonal
Outline Dimension	495.6(H) x 292.2(V) x 8.2(D) mm(Typ.)
Pixel Pitch	0.0827*RGB(H)mm x 0.248(V)mm
Pixel Format	1920 horiz. By 1080 vert. Pixels RGB stripes arrangement
Interface	LVDS 2Port
Color depth	16.7M colors
Luminance, white	250 cd/m^2 (Center 1Point, typ)
Viewing Angle (CR>10)	R/L 170(Typ.), U/D 160(Typ.)
Power Consumption	Total 17.3W(Typ.), (5.0 W@V_{LCD} , 12.3 W@W/O Driver)
Weight	1200 g (Typ.)
Display operating mode	Transmissive mode, Normally White
Surface treatments	Hard coating (3H), Anti-glare treatment of the front polarizer

4.3.3 Optical Characteristics

Electrical characteristics

Ta = 25°C

Parameter	Symbol	Values			Unit
		Min	Typ	Max	
MODULE :					
Power Supply Input Voltage	V_{LCD}	4.5	5.0	5.5	Vdc
Permissive Power Input Ripple	V_{LCD}	-	-	0.3	V
Power Supply Input Current	$I_{LCD-MOSAIC}$(60Hz)	-	1000	1300	mA
	$I_{LCD-BLACK}$(60Hz)	-	1300	1690	mA
	$I_{LCD-BLACK}$(75Hz)		-	2000	mA
Power Consumption	P_{LCD}	-	5.00	6.5	Watt
Inrush current	I_{RUSH}	-	-	3.0	A

LED bar Electrical characteristics

Ta = 25°C

Parameter	Symbol	Condition	Values			Unit
			Min.	Typ.	Max.	
LED :						
LED String Current	Is		-	60	65	mA
LED String Voltage	Vs		-	51.2	56	V
Power Consumption	PBar		-	12.3	13.4	Watt
LED Life Time	LED_LT		30,000	-	-	Hrs

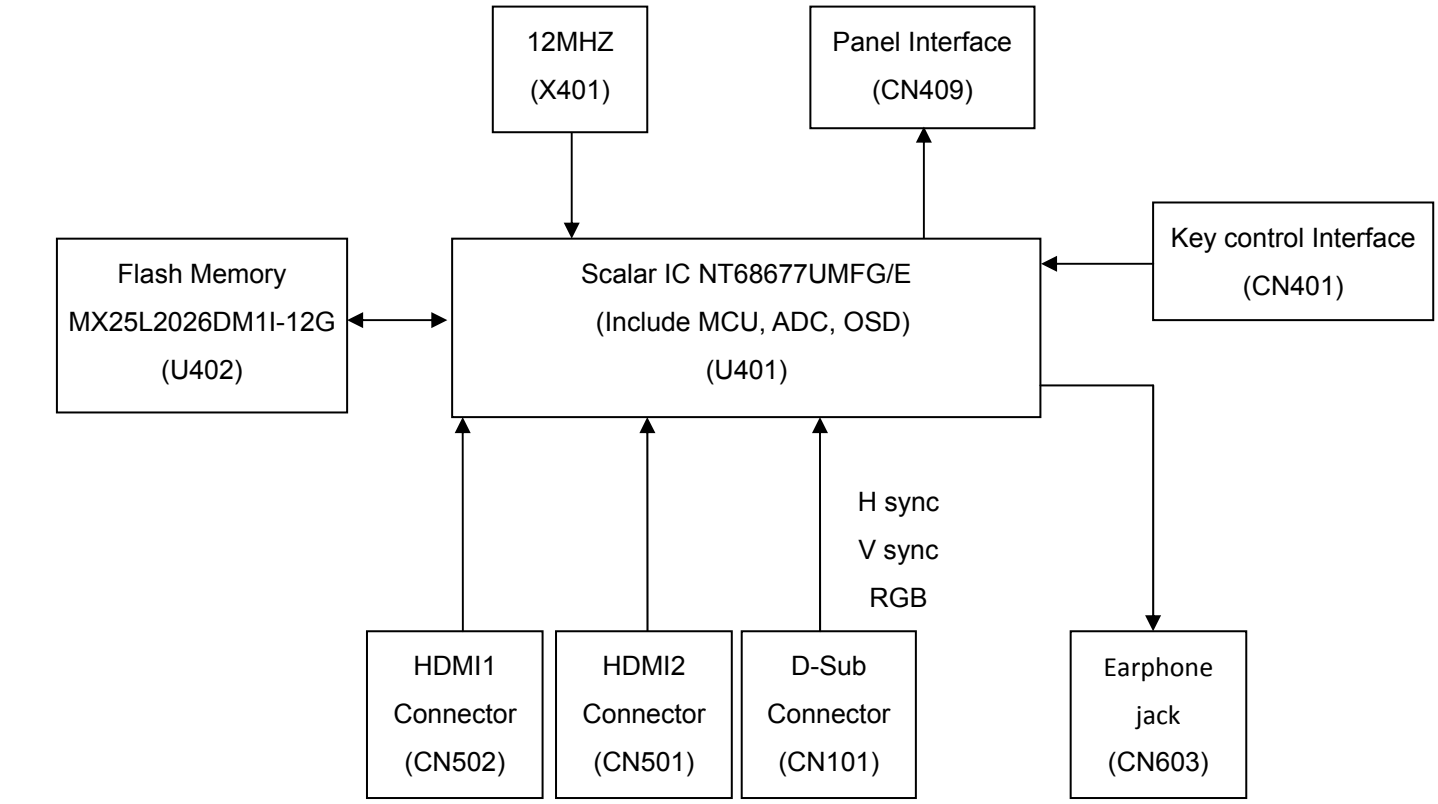
4.3.4 Optical Characteristics

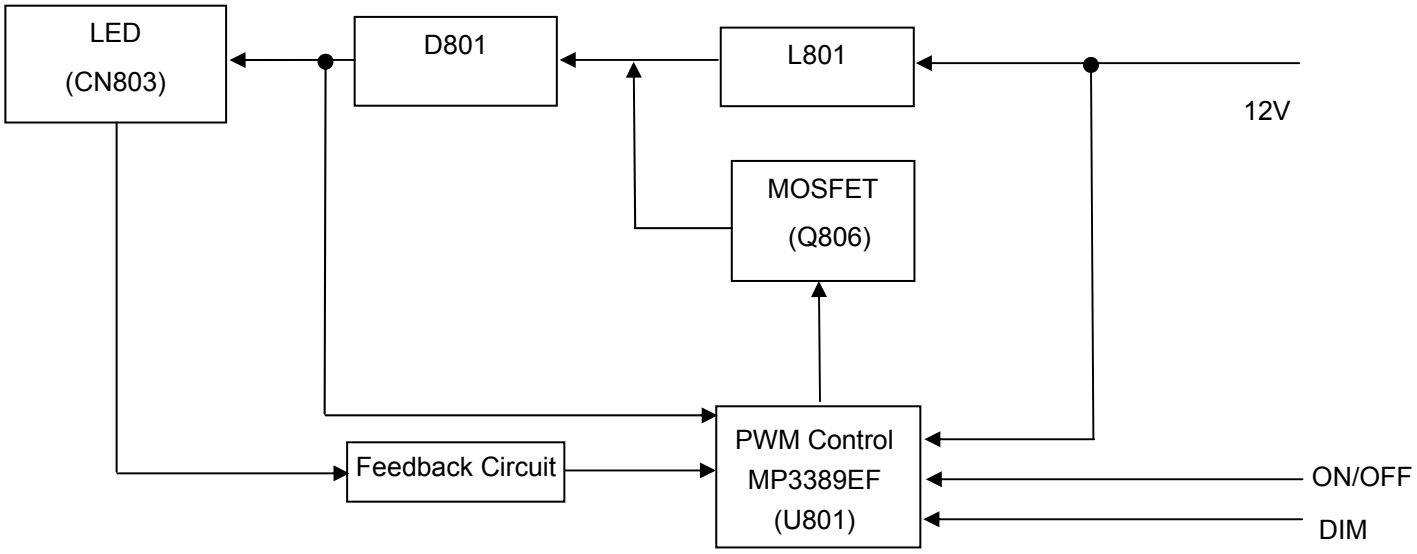
(Ta= 25°C, V_{LCD}=5.0V, fv=60Hz, D_{CLK}= 77.0MHz, Is=60mA)

Parameter		Symbol		Values			Units
				Min	Typ	Max	
Contrast Ratio		CR		700	1000	-	
Surface Luminance, white		L_{WH}		200	250	-	cd/m^2
Luminance Variation		δ_{WHITE}	9P	75	-	-	%
Response Time	Rise Time	Tr_R		-	1.3	2.6	ms
	Decay Time	Tr_D		-	3.7	7.4	ms
Color Coordinates [CIE1931]	RED	Rx		Typ -0.03	0.624	Typ +0.03	
		Ry			0.347		
	GREEN	Gx			0.337		
		Gy			0.625		
	BLUE	Bx			0.158		
		By			0.052		
	WHITE	Wx			0.313		
		Wy			0.329		
Viewing Angle (CR>5)							
	x axis, right(ϕ=0°)	θr		75	88		Degree
	x axis, left (ϕ=180°)	θl		75	88		
	y axis, up (ϕ=90°)	θu		70	85		
	y axis, down (ϕ=270°)	θd		70	85		
Viewing Angle (CR>10)							
	x axis, right(ϕ=0°)	θr		70	85		Degree
	x axis, left (ϕ=180°)	θl		70	85		
	y axis, up (ϕ=90°)	θu		60	75		
	y axis, down (ϕ=270°)	θd		70	85		
Crosstalk						1.5	%
Luminance uniformity - Angular dependence (TCO'03)		LR		-	-	1.7	
Color grayscale linearity		Δu'v'			0.018		

5. Block Diagram

Main Board

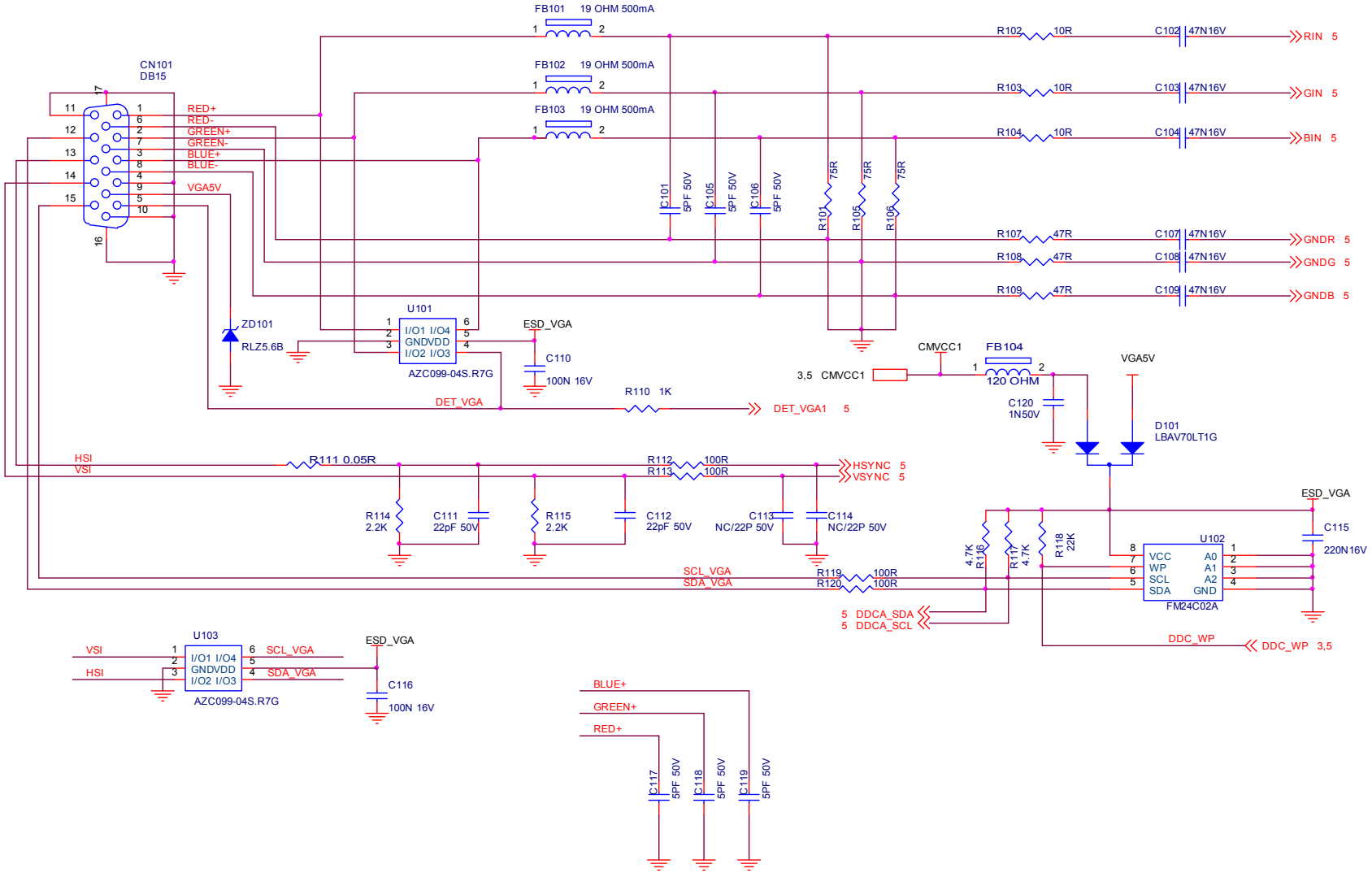




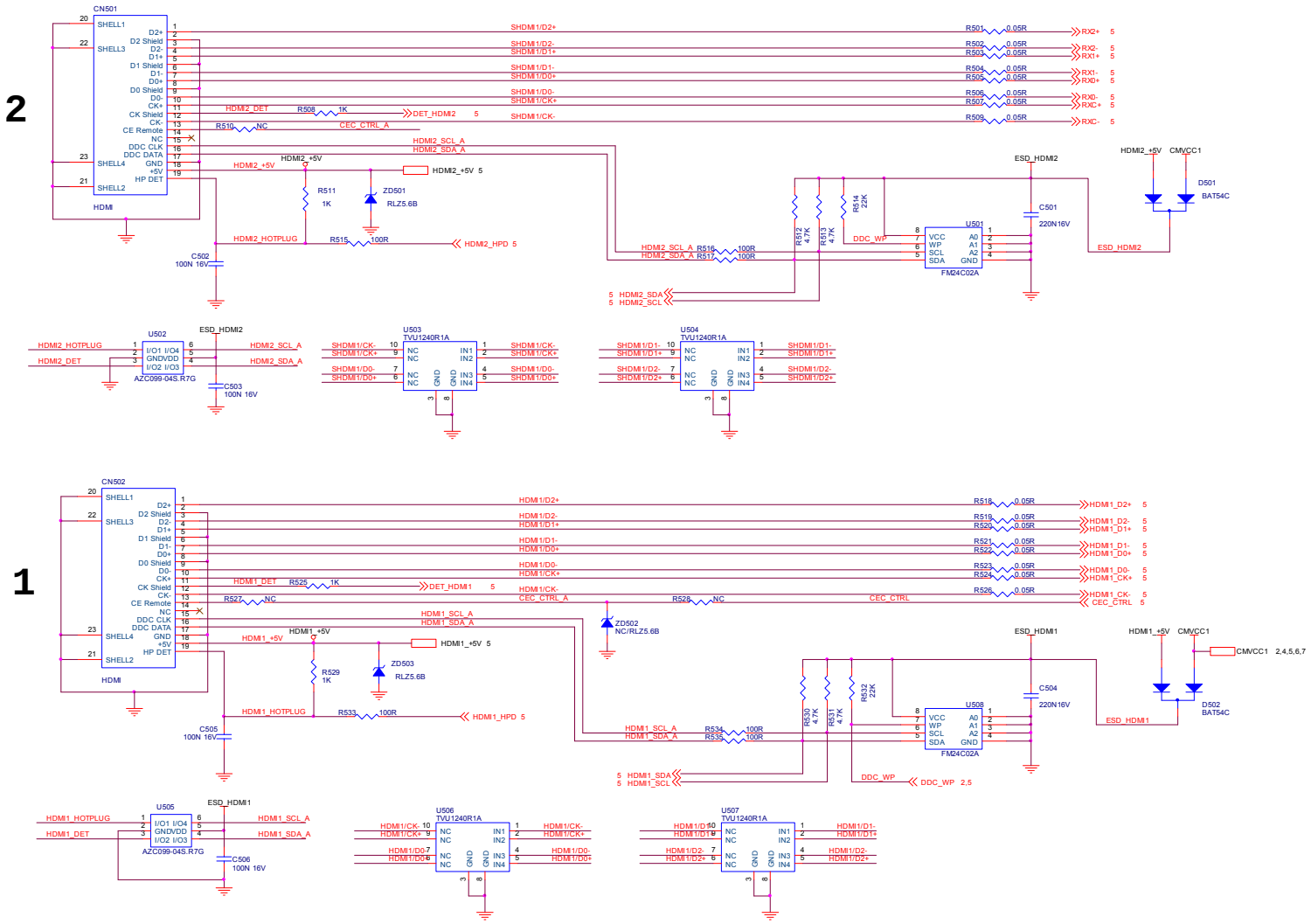
6. Schematic

6.1 Main Board

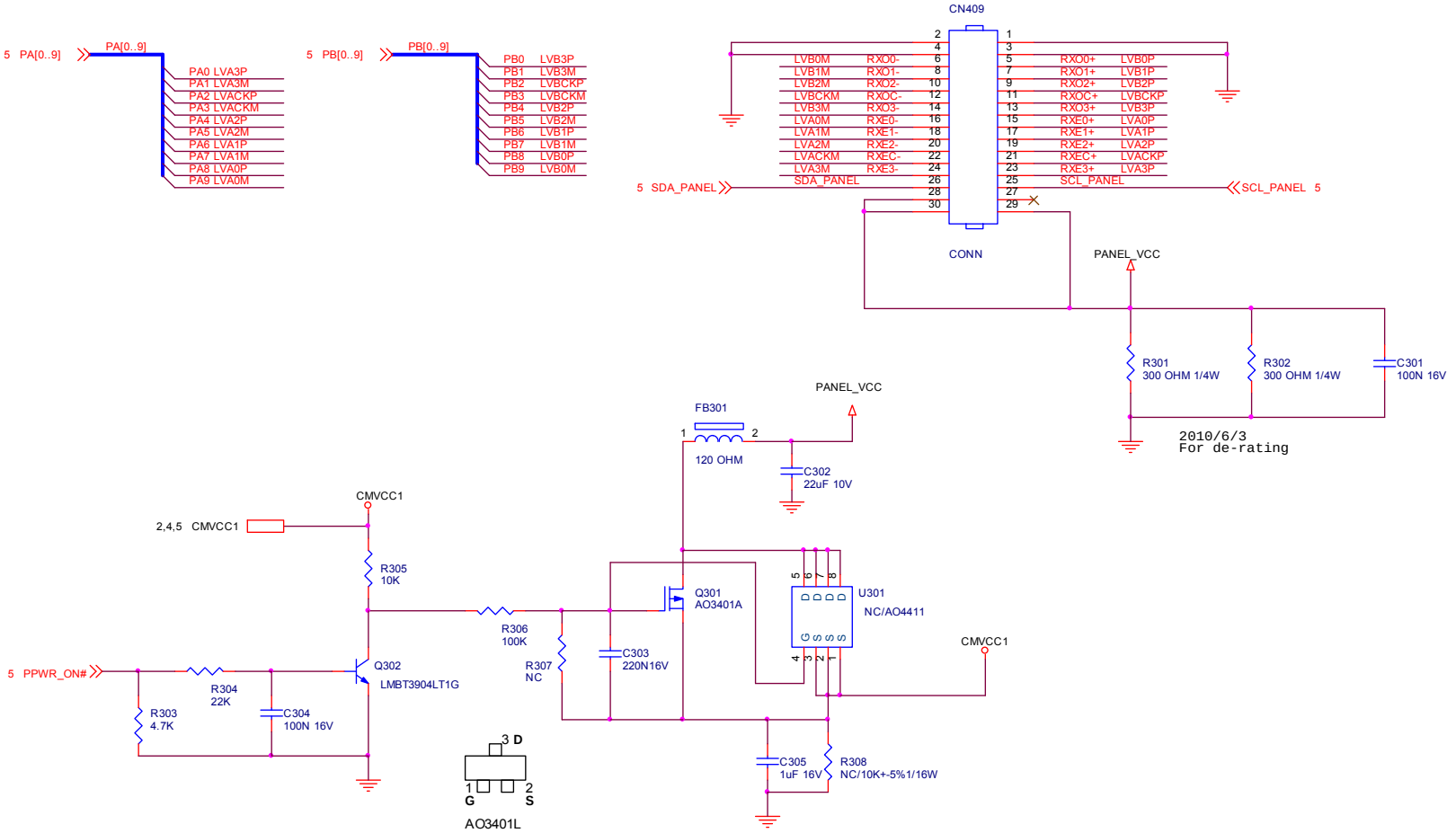
715G4604M0C000004I



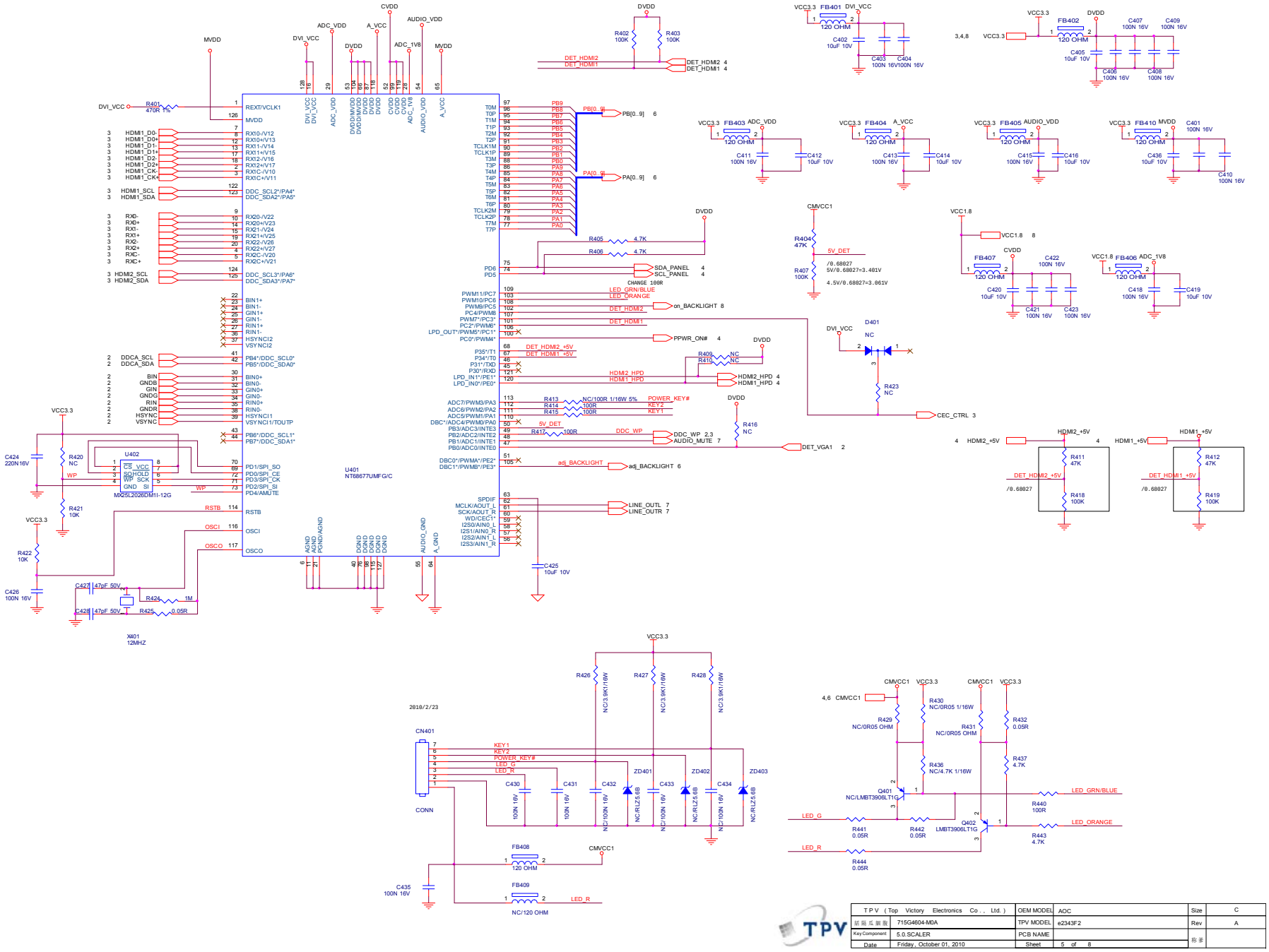
TPV (Top Victory Electronics Co., Ltd.)		OEM MODEL	AOC	Size	B
話隔瓜綢腹	715G4604-M0A	TPV MODEL	e2343F2	Rev	A
Key Component	2.0.INPUT	PCB NAME		称爹	
Date	Friday, October 01, 2010	Sheet	2 of 8		



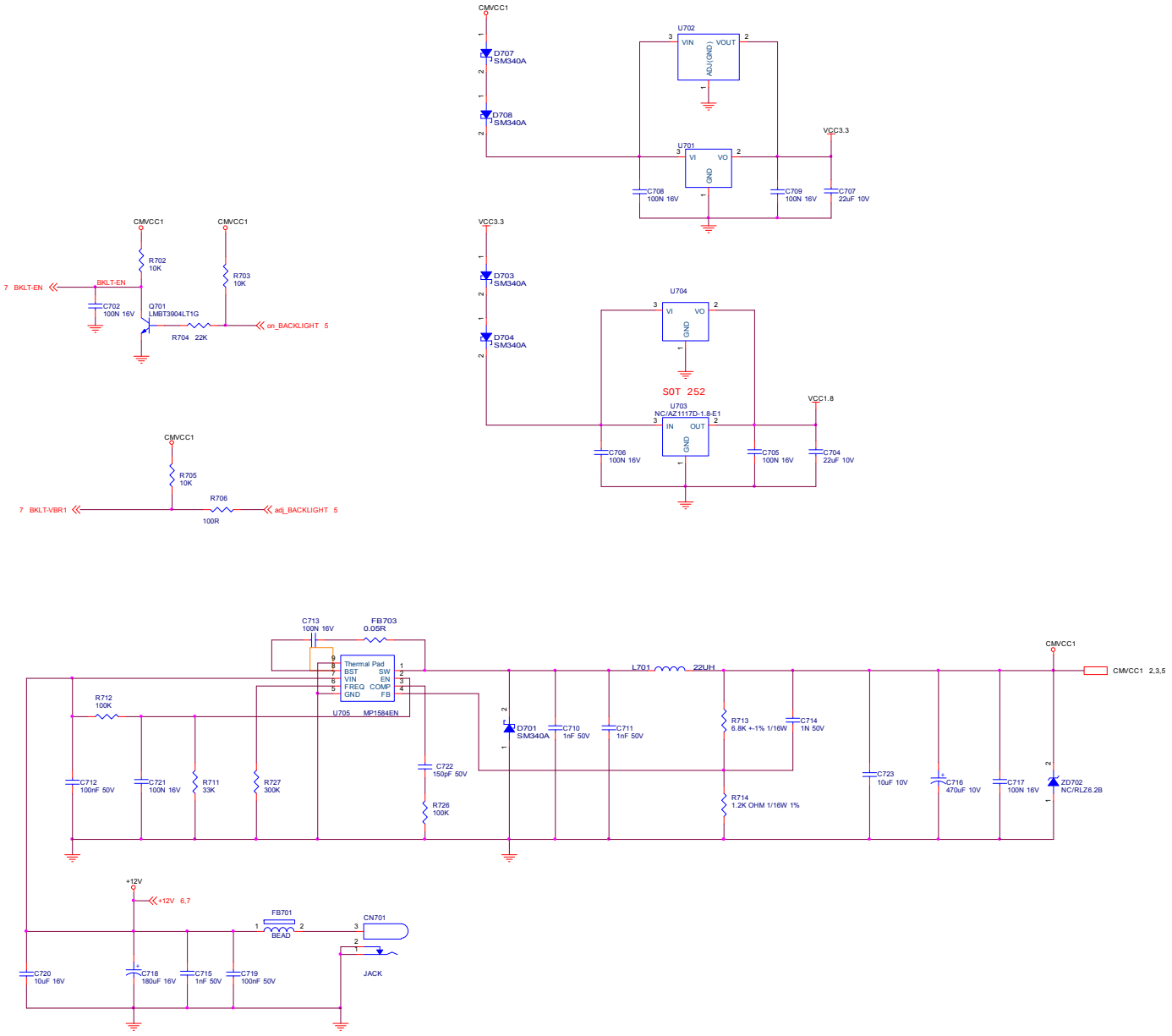
T P V (Top Victory Electronics Co . , Ltd.)		OEM MODEL	AOC	Size	C
版 版 瓜 版 版	715G4604-M0A	TPV MODEL	e2343F2	Rev	A
Key Component	3.0HDMI	PCB NAME		称 多	
Date	Friday , October 01, 2010	Sheet	3 of 8		



T P V （Top Victory Electronics Co . , Ltd. ）		OEM MODEL	AOC	Size	B
結 隔 瓜 銅 腹	715G4604-M0A	TPV MODEL	e2343F2	Rev	A
Key Component	4.0.OUTPUT	PCB NAME		称 爹	
Date	Friday , October 01, 2010	Sheet	4 of 8		

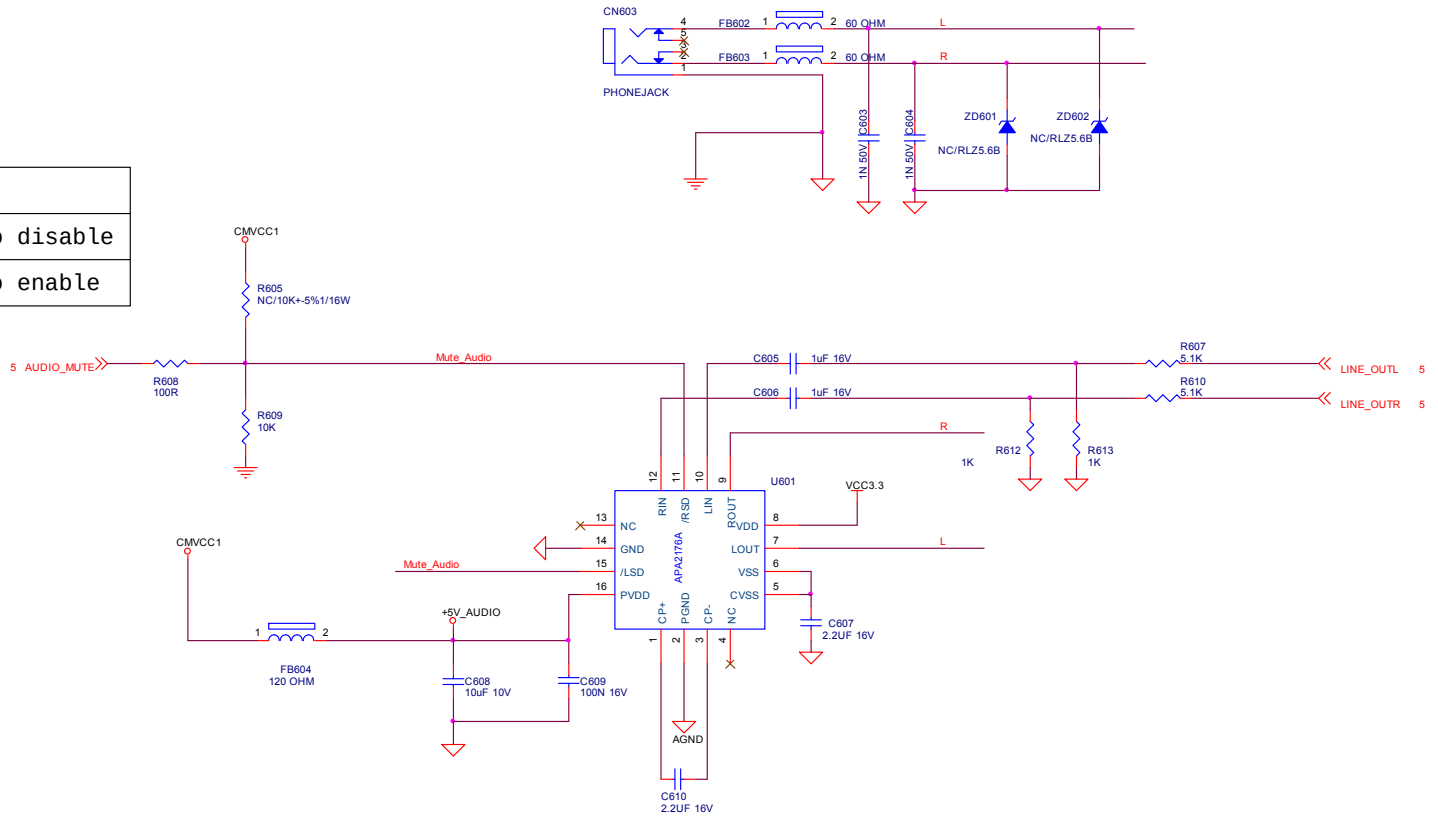


T P V (Top Victory Electronics Co . , Ltd.)	OEM MODEL	AOC	Size C
第陽瓜個廠	715G4604-M0A	TPV MODEL	e2343F2	Rev A
Key Component	5.0.SCALER	PCB NAME	
Date Friday, October 01, 2010	Sheet 5 of 8		標準

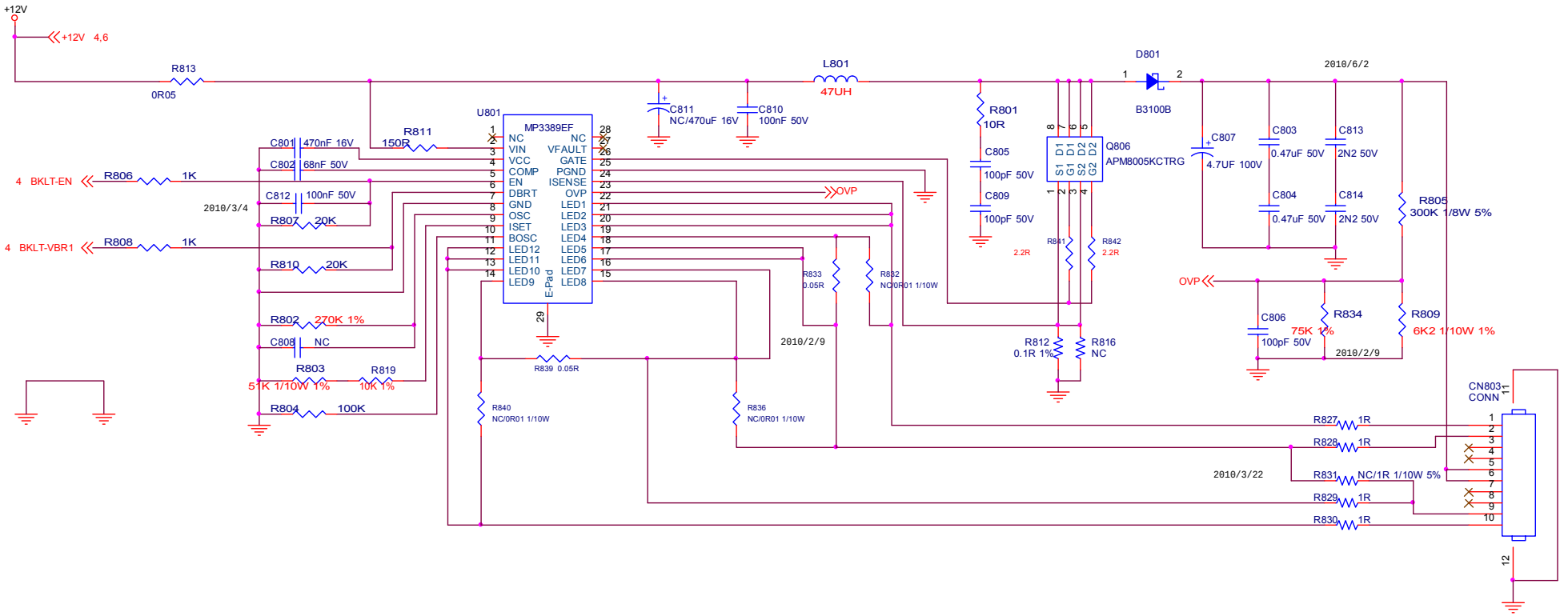


TPV (Top Victory Electronics Co., Ltd.)		OEM MODEL	AOC	Size	C
机箱瓜膜版	715G4604-M0A	TPV MODEL	e2343F2	Rev	A
Key Component	6.0.POWER	PCB NAME		称重	
Date	Friday, October 01, 2010	Sheet	6 of 8		

MUTE	
LOW	Audio disable
HI	Audio enable



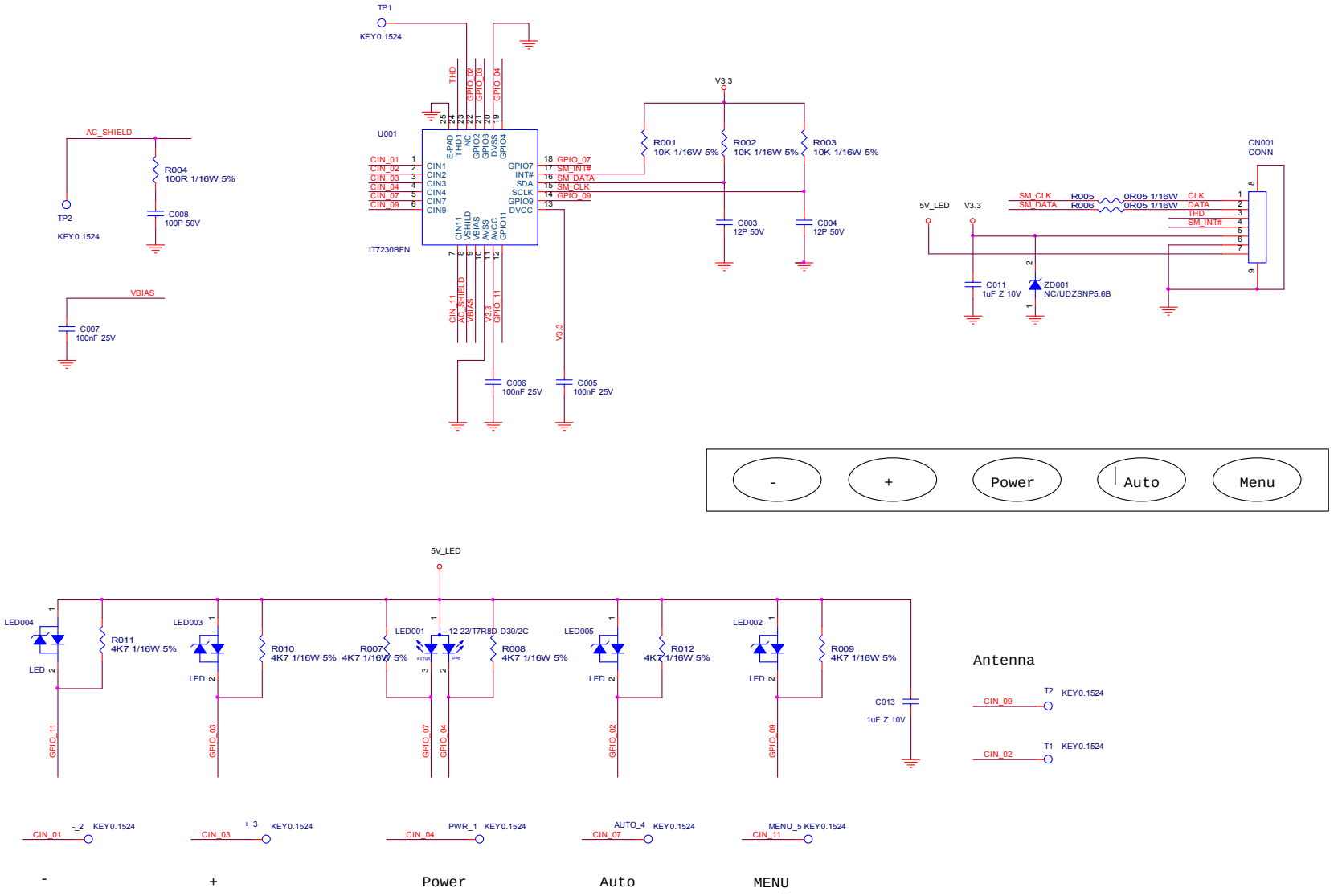
TPV (Top Victory Electronics Co., Ltd.)		OEM MODEL	AOC	Size	Custom
結陽瓜鋼服	715G4604-M0A	TPV MODEL	e2343F2	Rev	A
Key Component	7.0.AUDIO	PCB NAME		称爹	
Date	Friday, October 01, 2010	Sheet	7 of 8		



T P V (Top Victory Electronics Co . , Ltd.)		OEM MODEL	AOC	Size	Custom
结 隔 爪 鋼 腹	715G4604-M0A	TPV MODEL	e2343F2	Rev	A
Key Component	8.0.CONVERT	PCB NAME		称 爹	
Date	Friday , October 01, 2010	Sheet	8 of 8		

6.2 Key Board

715G4164K01000004F

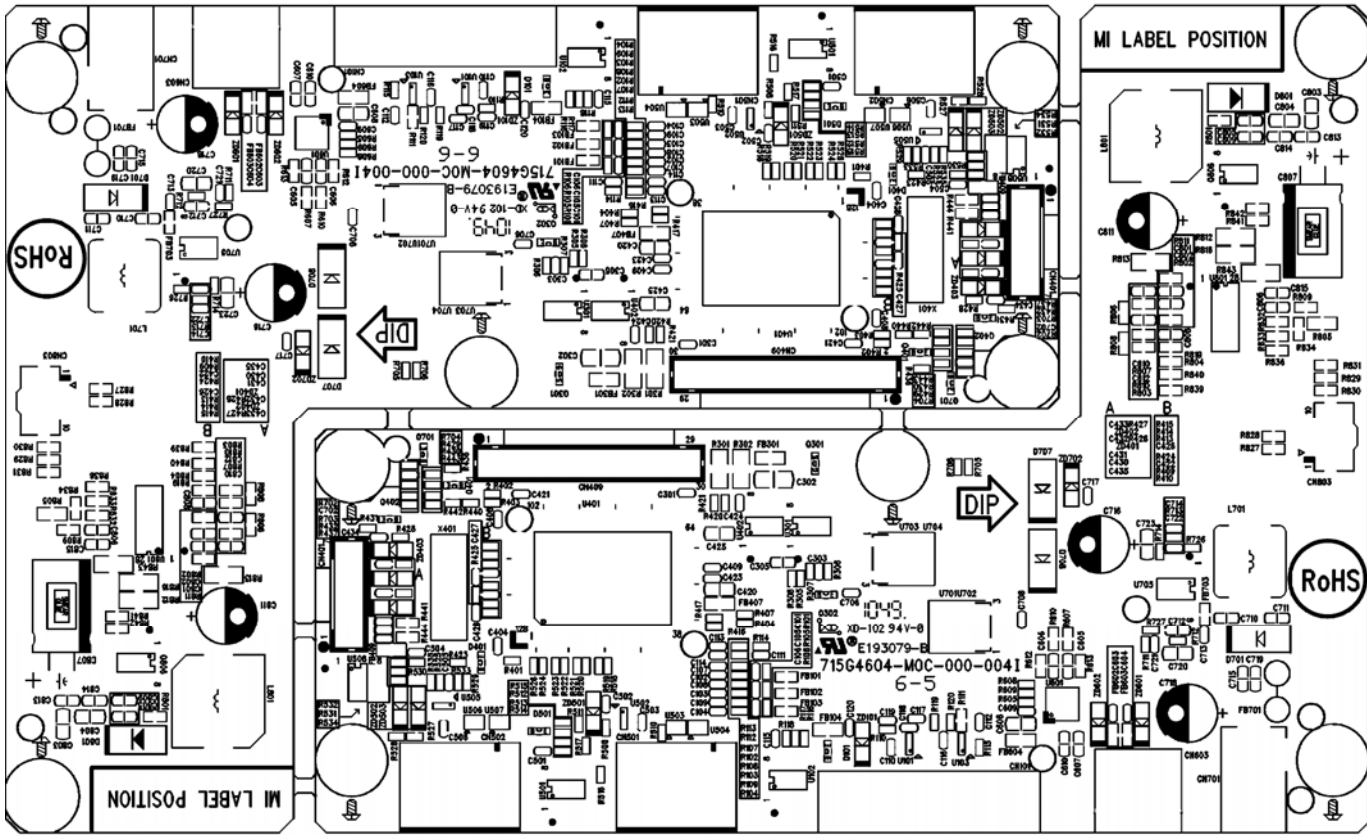


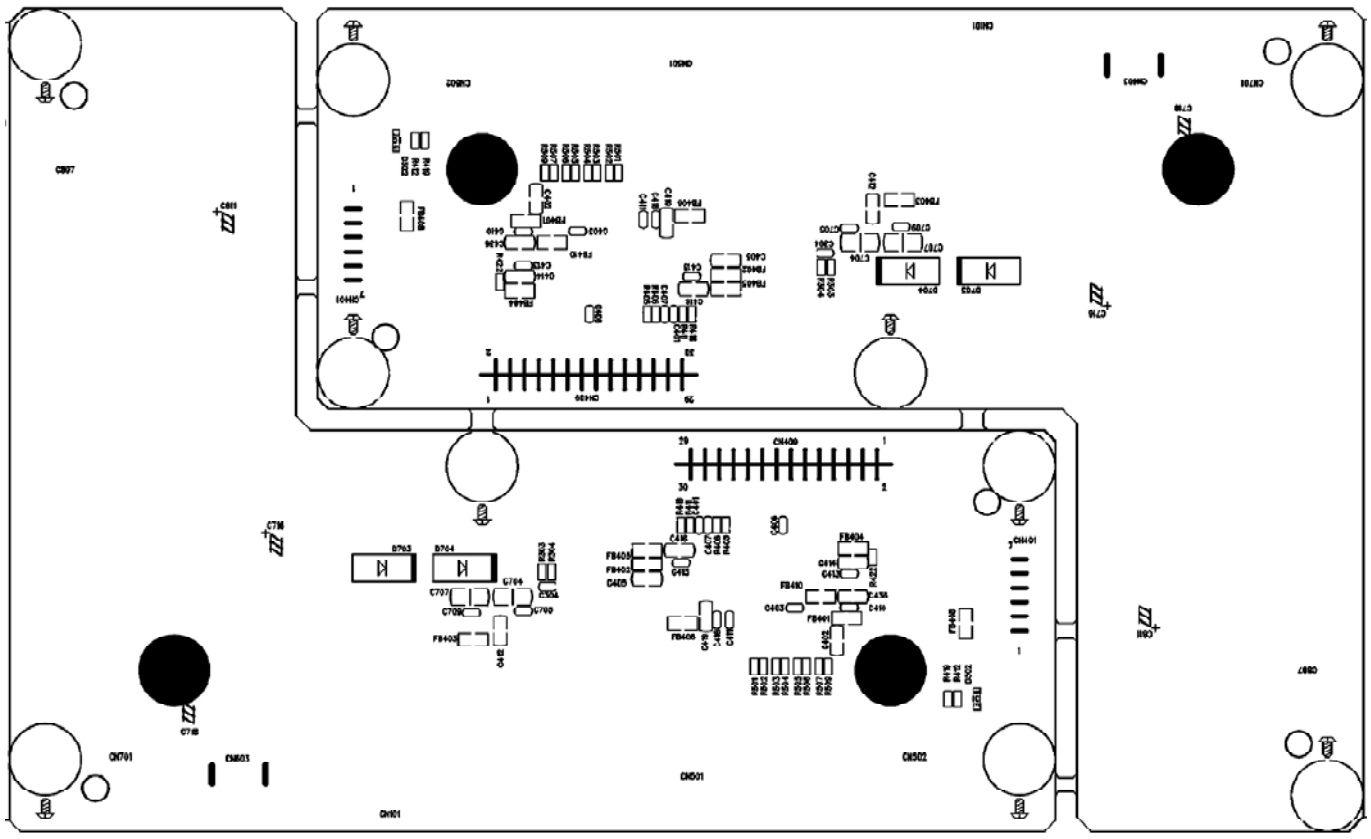
TPV (Top Victory Electronics Co., Ltd.)		OEM MODEL		Size	A3
拓 陽 瓦 廠 股	715G4164-K0C-000-0040_20100420.DSN	TPV MODEL		Rev	C
Key Component	2.0 Touch key	PCB NAME	715G4164-K0C	称 爹	
Date	Tuesday, April 20, 2010	Sheet	2 of 2		

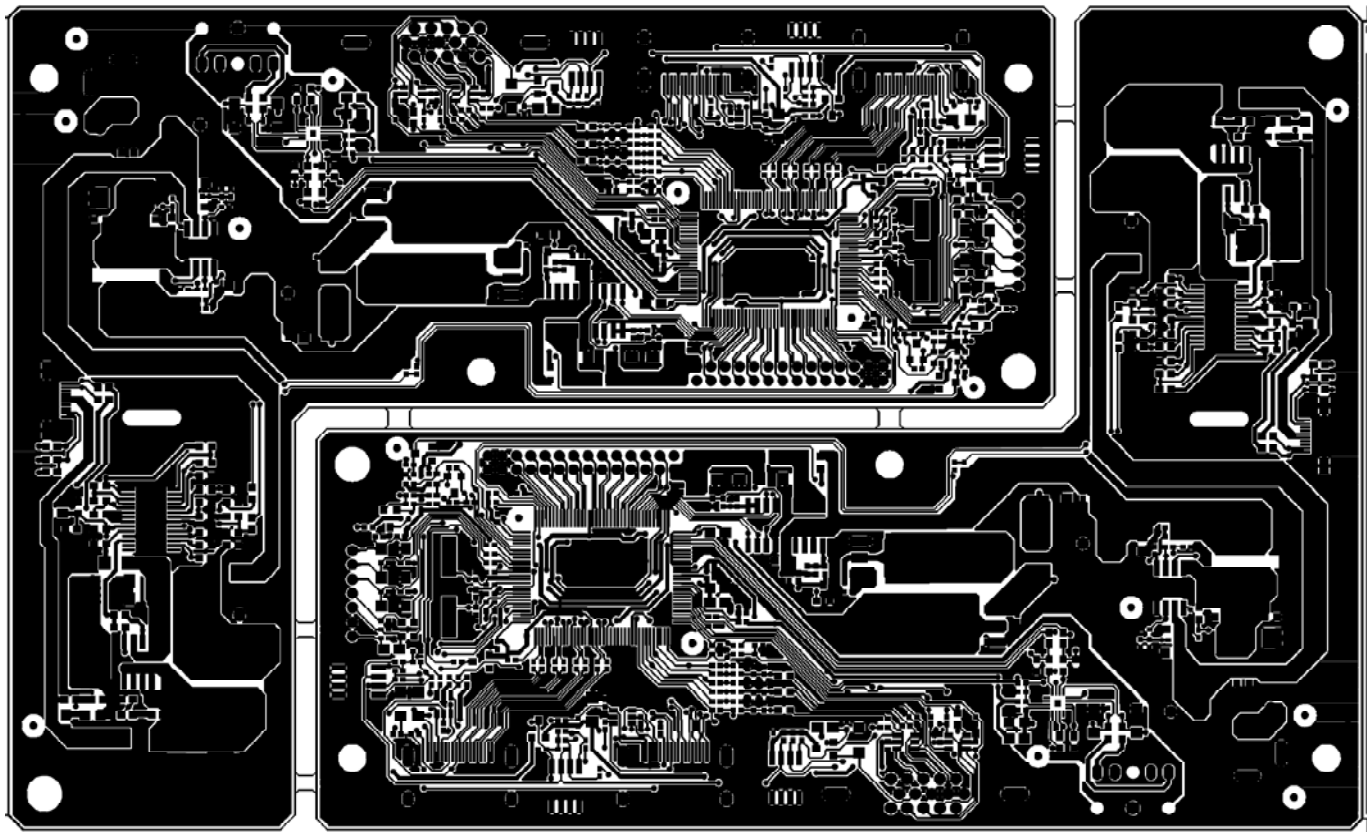
7. PCB Layout

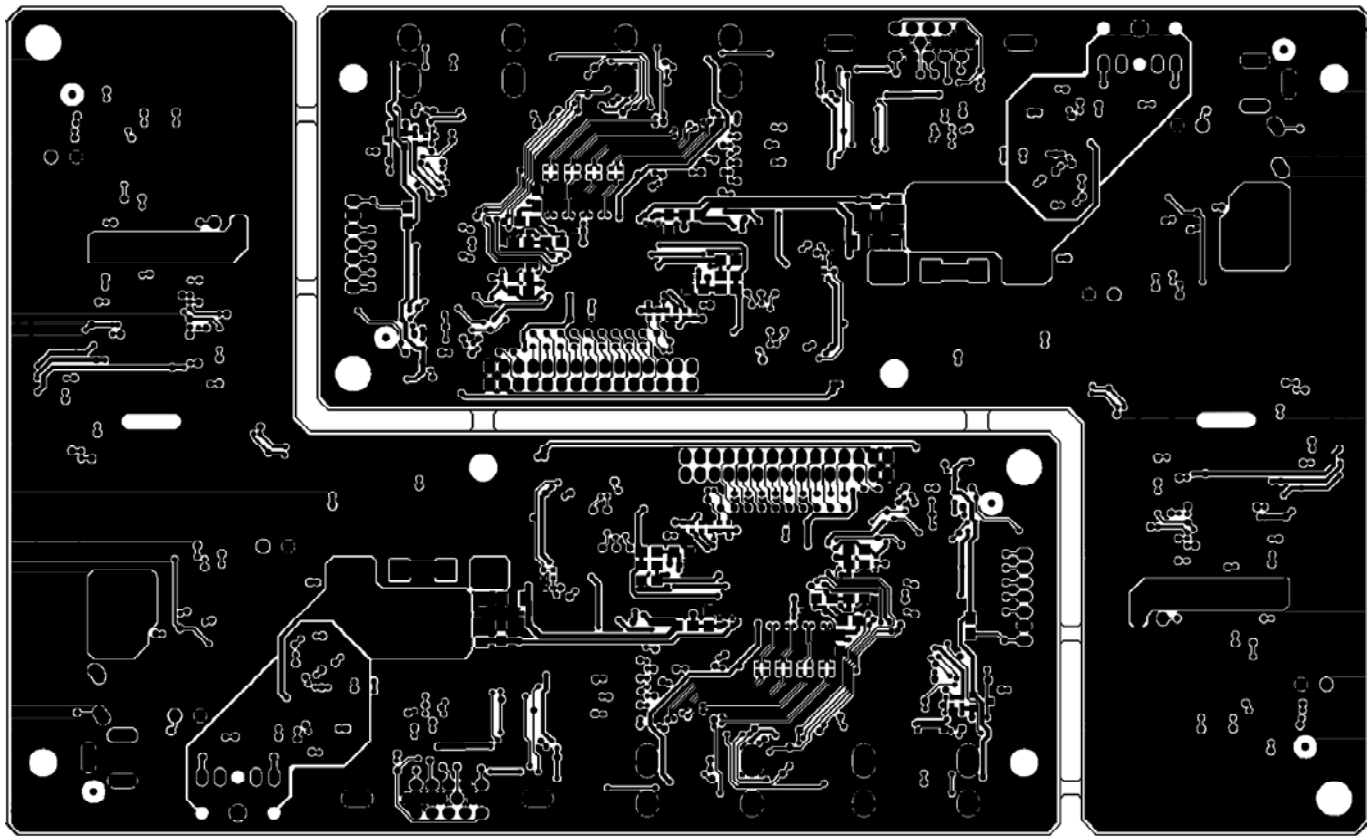
7.1 Main Board

715G4604M0C000004I



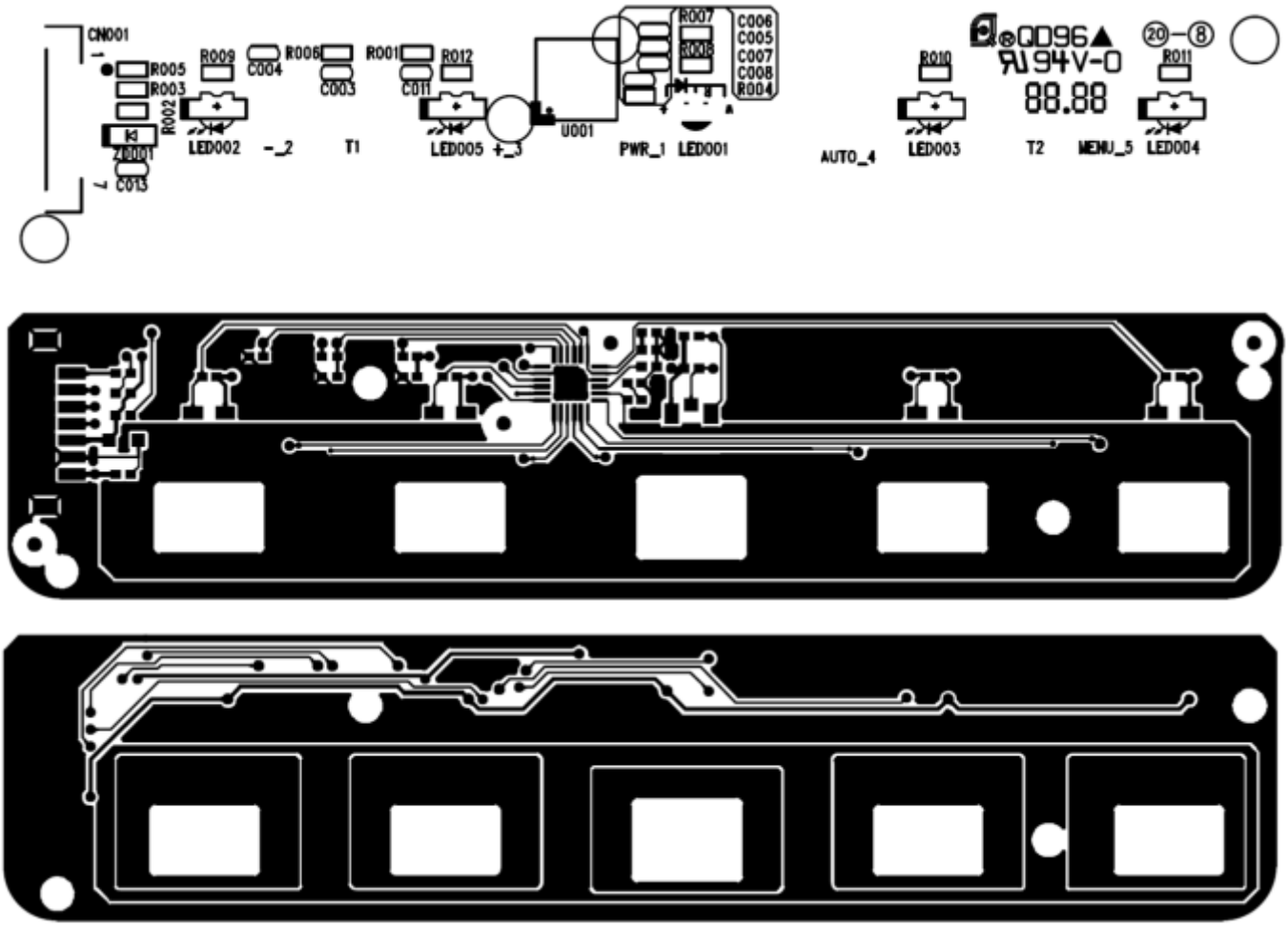






7.2 Key Board

715G4164K01000004F



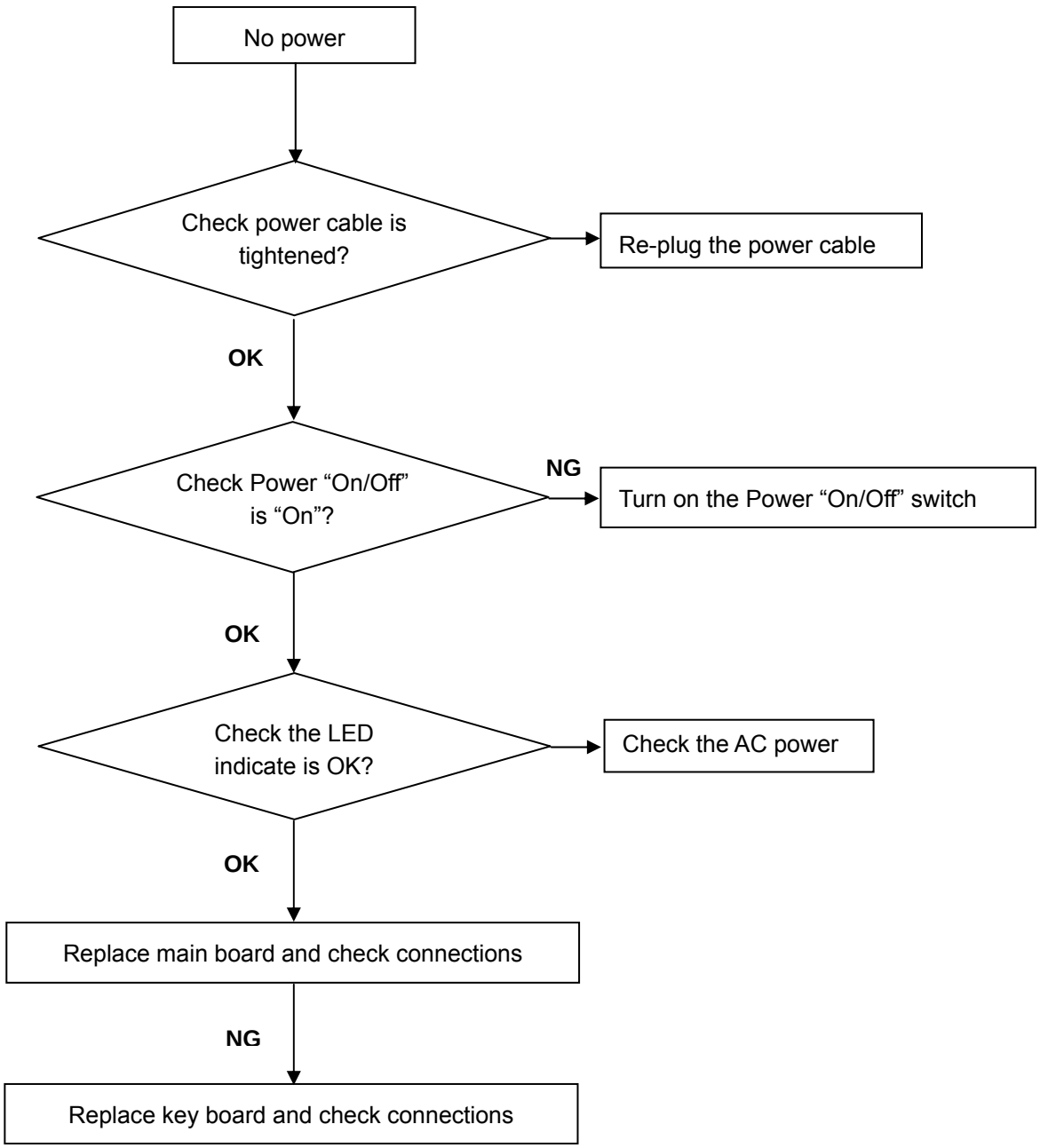
8. Maintainability

8.1 Equipments and Tools Requirement

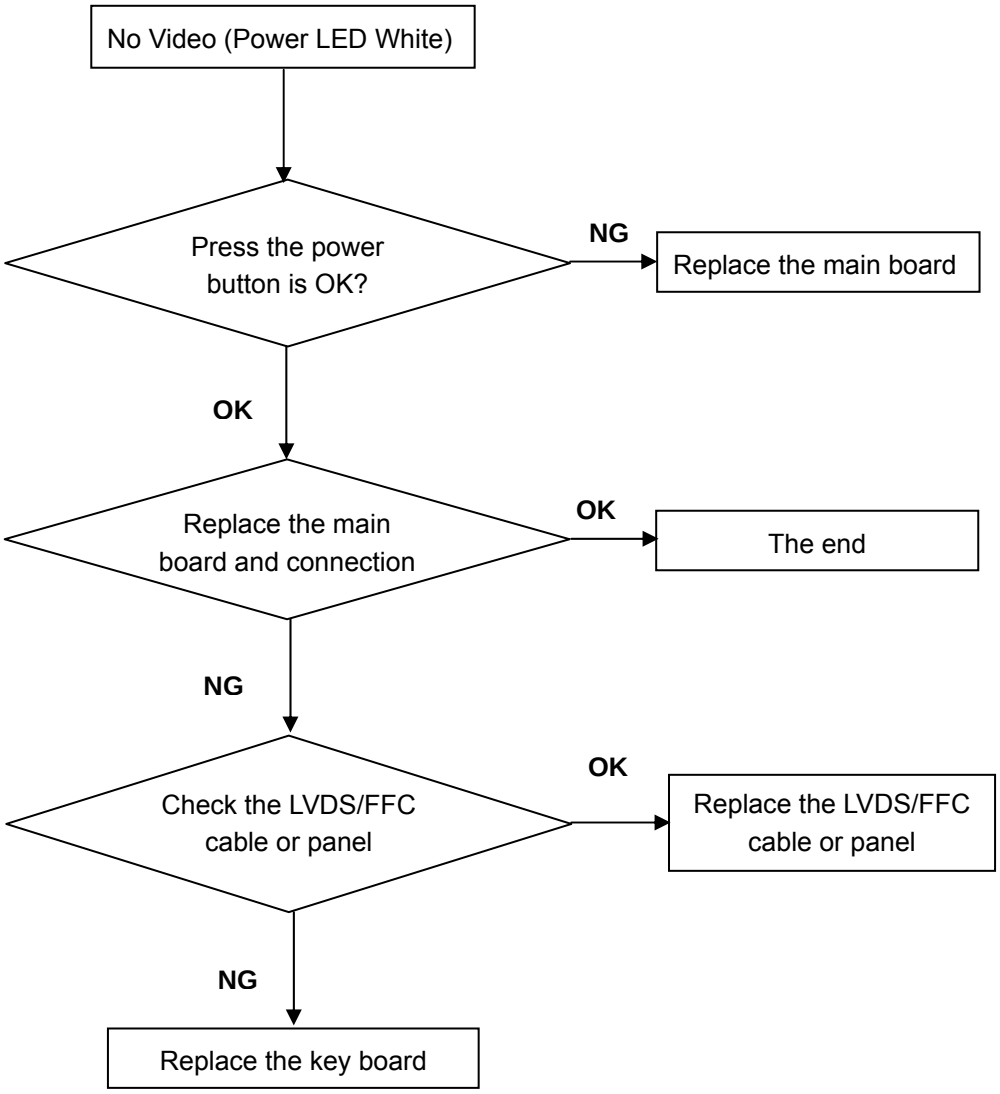
1. Voltmeter.
2. Oscilloscope.
3. Pattern Generator.
4. DDC Tool with an IBM Compatible Computer.
5. Alignment Tool.
6. LCD Color Analyzer.
7. Service Manual.
8. User Manual.

8.2 Trouble Shooting

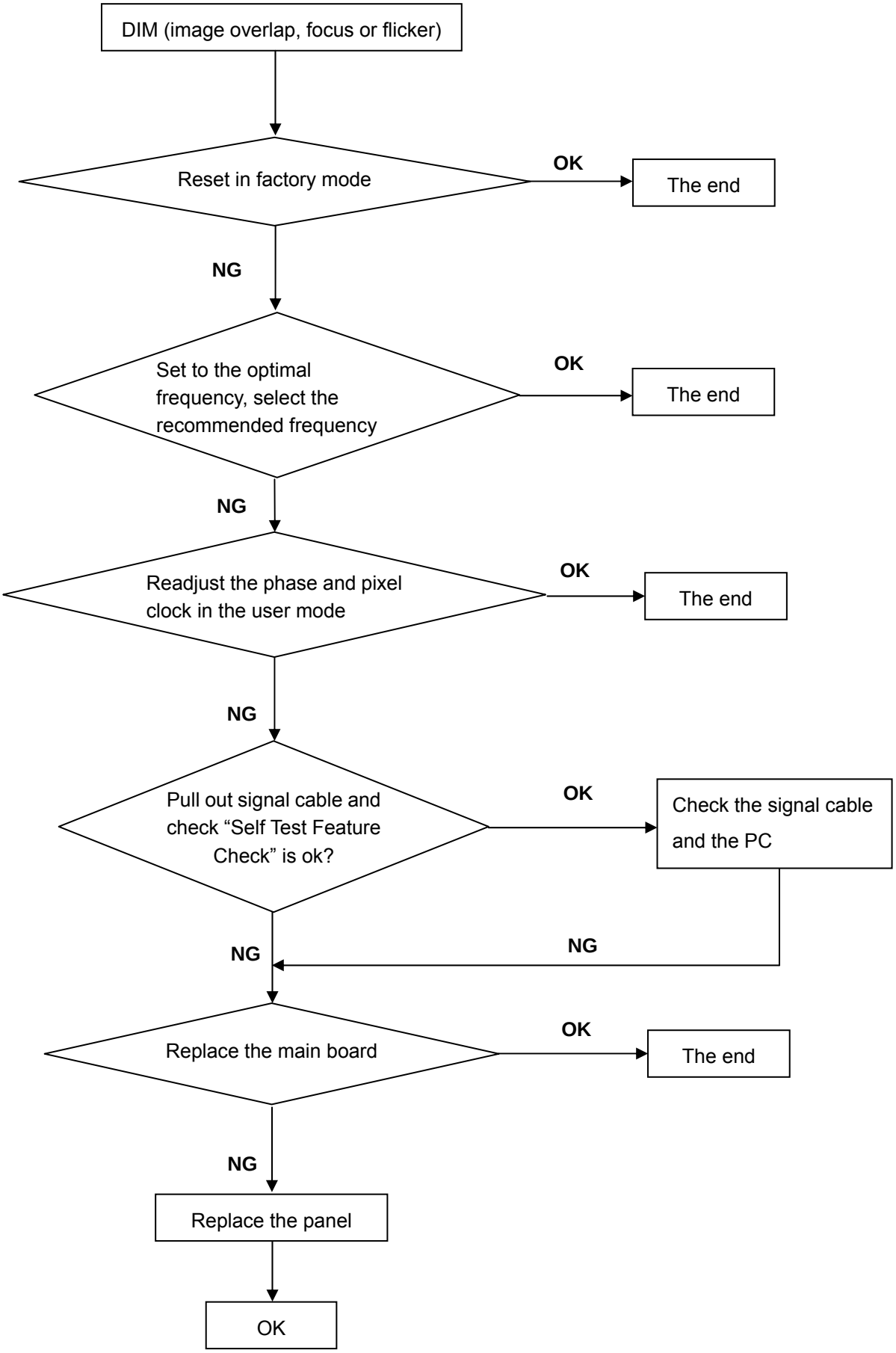
1. No Power



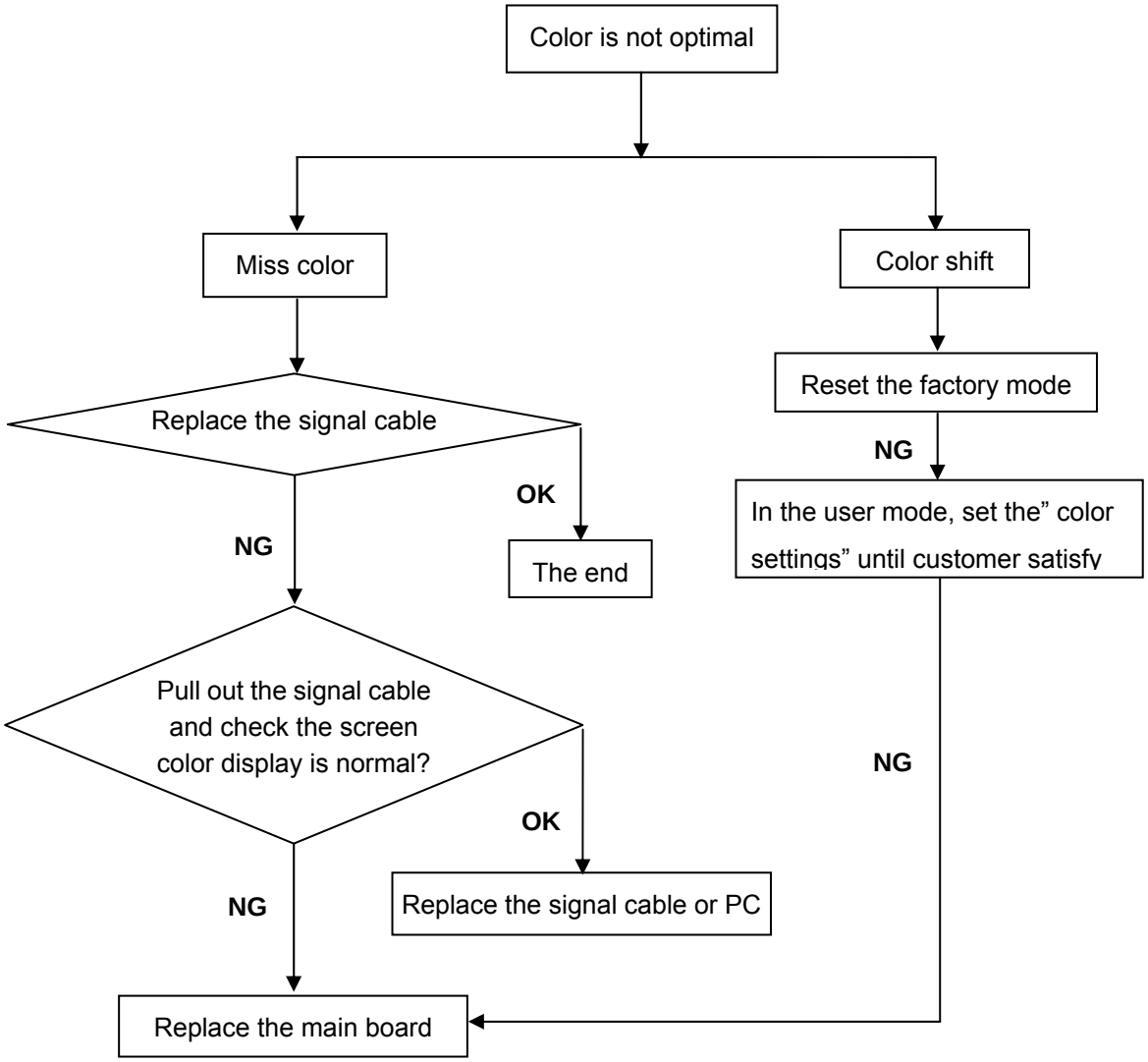
2. No Video (Power LED White)



3. DIM


DIM (image overlap, focus or flicker)
Reset in factory mode
OK
The end
NG
Set to the optimal frequency, select the recommended frequency
OK
The end
NG
Readjust the phase and pixel clock in the user mode
OK
The end
NG
Pull out signal cable and check “Self Test Feature Check” is ok?
OK
Check the signal cable and the PC
NG
NG
Replace the main board
OK
The end
NG
Replace the panel
OK

4. Color is not optimal



9. White- Balance, Luminance Adjustment

Approximately 30 minutes should be allowed for warm up before proceeding white balance adjustment.

How to setting MEM channel you can reference to chroma 7120 user guide or simpl use “SC” key and “NEXT” Key to modify xyY value and use “ID” key to modify the TEXT description Following is the procedure to do white-balance adjust .

2. Setting the color temp. you want

A. MEM.CHANNEL 3 Warm (6500K):

Warm color temp. parameter is x = 313 ±30, y = 329 ±30

B. MEM.CHANNEL 4 Normal (7300K):

Normal color temp. parameter is x = 302 ±30, y = 318 ±30

C. MEM.CHANNEL 9 Cool (9300K):

Cool color temp. parameter is x = 283 ±30, y = 297 ±30

D. MEM.CHANNEL 10 (sRGB color):

sRGB color temp. parameter is x = 313 ±30, y = 329 ±30

3. Enter into the factory mode

Turn off the power, press two direction keys and turn the power on. Then press the “MENU” button. The factory OSD will appear.

4. Gain adjustment:

Move cursor to “-F-” and press MENU key

A. Adjust Warm (6500K) color-temperature

1. Switch the chroma-7120 to **RGB-Mode** (with press “MODE” button)
2. Switch the MEM.channel to Channel 3 (with up or down arrow on chroma 7120)
3. The LCD-indicator on chroma 7120 will show x = 313 ±30, y = 329 ±30
4. Adjust the RED on factory window until chroma 7120 indicator reached the value R=100
5. Adjust the GREEN on factory window until chroma 7120 indicator reachedthe value G=100
6. Adjust the BLUE on factory window until chroma 7120 indicator reached the value B=100
7. Repeat above procedure (item 4, 5, 6) until chroma 7120 RGB value meet the tolerance =100±2

B. Adjust Normal (7300K) color-temperature

1. Switch the chroma-7120 to **RGB-Mode** (with press “MODE” button)
2. Switch the MEM.channel to Channel 4 (with up or down arrow on chroma 7120)
3. The LCD-indicator on chroma 7120 will show x = 302 ±30, y = 318 ±30
4. Adjust the RED on factory window until chroma 7120 indicator reached the value R=100
5. Adjust the GREEN on factory window until chroma 7120 indicator reachedthe value G=100
6. Adjust the BLUE on factory window until chroma 7120 indicator reached the value B=100
7. Repeat above procedure (item 4, 5, 6) until chroma 7120 RGB value meet the tolerance =100±2

C. Adjust Cool (9300K) color-temperature

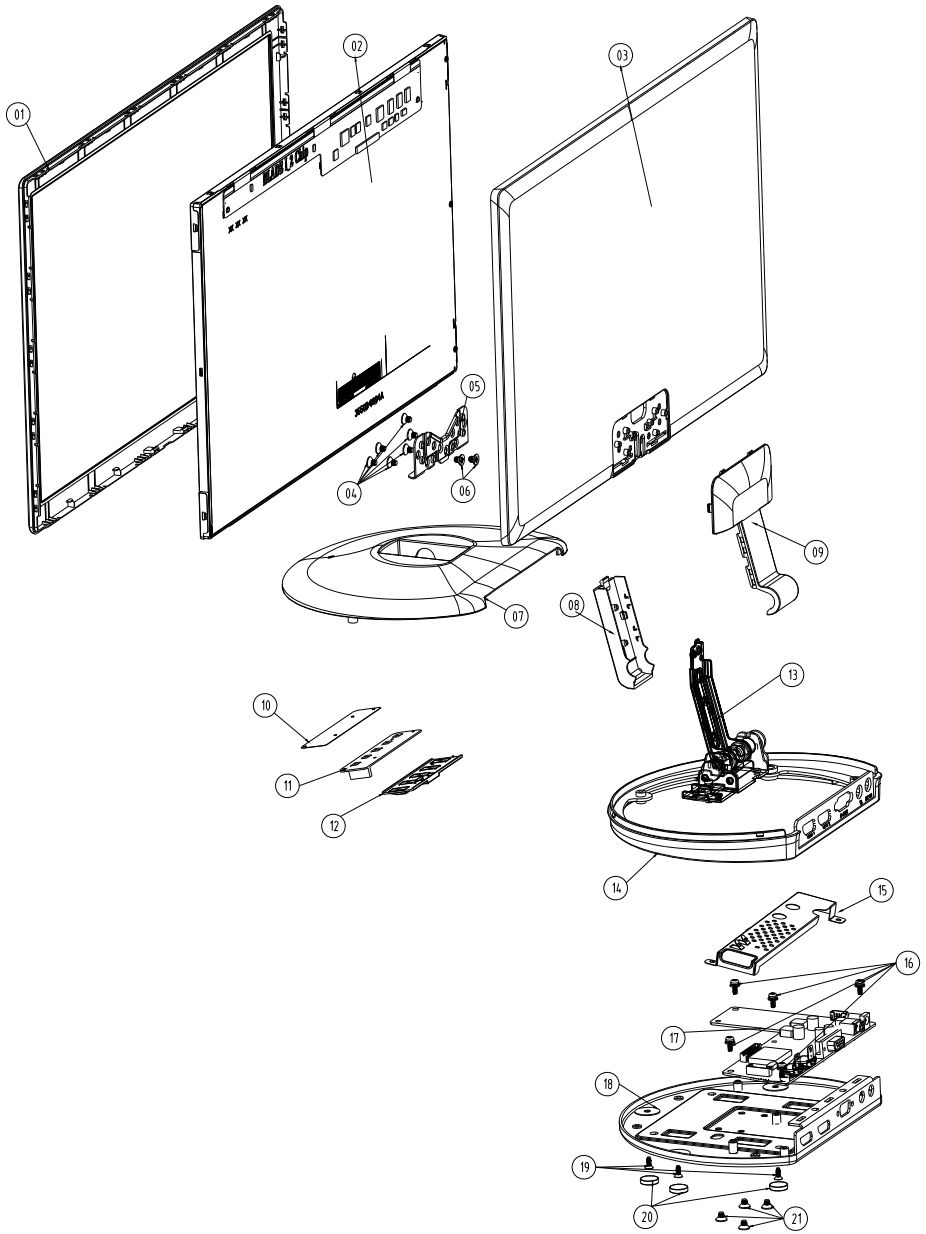
1. Switch the Chroma-7120 to **RGB-Mode** (with press “MODE” button)
2. Switch the MEM. Channel to Channel 9 (with up or down arrow on chroma 7120)
3. The LCD-indicator on chroma 7120 will show x = 283 ±30, y = 297 ±30
4. Adjust the RED on factory window until chroma 7120 indicator reached the value R=100
5. Adjust the GREEN on factory window until chroma 7120 indicator reached the value G=100
6. Adjust the BLUE on factory window until chroma 7120 indicator reached the value B=100
7. Repeat above procedure (item 4, 5, 6) until chroma 7120 RGB value meet the tolerance =100±2

D. Adjust sRGB color-temperature

1. Switch the chroma-7120 to **RGB-Mode** (with press “MODE” button)
2. Switch the MEM.channel to Channel 10 (with up or down arrow on chroma 7120)
3. The LCD-indicator on chroma 7120 will show x = 313 ±30, y = 329 ±30
4. Adjust the RED on factory window until chroma 7120 indicator reached the value R=100
5. Adjust the GREEN on factory window until chroma 7120 indicator reachedthe value G=100
6. Adjust the BLUE on factory window until chroma 7120 indicator reached the value B=100
7. Repeat above procedure (item 4, 5, 6) until chroma 7120 RGB value meet the tolerance =100±2

E. Turn the Power-button off to quit from factory mode.

10. Monitor Exploded View



NO.	DESCRIPTION	NO.	PART NO.	DESCRIPTION
1	BEZEL L215W-TB1-TBP1	4	0M1G-140--6125	SCREW(TILT SUPPORT BRACKET/ REAR COVER)
2	PANEL LM215WF4-TRA2 FQ LTD	6	0M1G-940--5125	SCREW(HINGE /TILT SUPPORT BRACKET)
3	REAR COVER L215W-TB1-TBP1	16	0M1G1730--6120	SCREW(MAIN BOARD/ SHIELD_MAIN_BASE)
5	TILT SUPPORT BRACKET	17		MAIN BOARD
7	BASE COVER TOP	18		SHIELD
8	HINGE FRONT COVER	19	0Q1G-140-10120	SCREW(BASE/ SHIELD_MAIN_BASE)
9	HINGE BACK COVER	20		FOOT PAD
10	SHEET	21	0M1G-140--8125	SCREW(SHIELD_MAIN_BASE / HINGE)
11	KEY BOARD			
12	LENS			
13	HINGE 21.5			
14	BASE TRIM			
15	SHIELD COVER			

11. BOM List

Note: The parts information listed below are for reference only, and are subject to change without notice. Please go to http://cs.tpv.com.cn/hello1.asp for the latest information.

HIAJNZ2FZ3UHHNF.LF

Location	Part No.	Description	Remark
	040G-58162435A	P/N LABEL FOR MANUAL PE BAG	
	040G-581689-4A	BARCODE LABEL FOR 1	
	052G---1150--C	INSULATING TAPE	
	052G---1211--B	CONDUCTIVE TAPE 85MM *40MM *0.09MM	
	052G---2191--A	PAPER TAPE	
	052G6019--1	INSULATING TAPE	
	085G-583576	GASKET_ELECTRIC	
	089G-183GAA501	DVI TO HDMI CABLE 1800MM	
E08902	089G-725HAA-DB	D-SUB CABLE	
	089G-725CAA-DB	D-SUB CABLE	2nd source
	089G-725GAA-DB	D-SUB CABLE	2nd source
E08901	089G404A15N-HL	AC POWER CORD 1500MM	
	089G404A15N-CX	AC POWER CORD 1500MM EUROPE REG.	2nd source
	089G404A15N-IS	AC POWER CORD 1500MM EUROPE REG.	2nd source
	095G176J-10V03	FFC CABLE 10PIN 591MM 0.5MM	
E09503	095G8014-7L605	WIRE HARNESS 7P-7P(A1253HA HR) 120MM	
	095G8014-7D605	HARNESS 7P-7P(A1253HA HR) 120MM	2nd source
E09501	095G8018-3XJ48-LNT	LVDS CABLE 30P-30P 480MM	
	095G8018-3DJ48-LNT	LVDS CABLE 30P-30P 480MM	2nd source
	S95G80183J48LNT	LVDS CABLE 30P-30P 480MM	2nd source
	708GB059-CP-4A	AOC 40(1600)	
	Q45G--77--4	PE FILM	
	Q50G---4-10	TIE (Y1900221)	
	Q52G---1185-99	BIG CARTON TAPE FOR AOC	
	750GMT215W4A21N000	PANEL LM215WF4-TRA2 FQ LTD	
	2436L-1638A	LM215WF4-TRA2-6F1-A0	
	3110T-0706A	GALVALUME, T=0.3, LM215WF4-TRA1-6F1-A0	
	3850L-0088A	ID, YUPO, 78X37	
	4296L-0284A	PMP-P2 100-520U-13, 5U-C60 BLACK A600, 180X7X0.45	
	6060L-1842A	LM215WF4-TRA2-6F1-A0	
	6061L-1515A	LM215WF4-TRA1-611	

	6884L-0053A	CP2420ISL,L=1.5MMX300M, T=18UM, SONY	
	6871L-2345A	SOURCE, SINGLE, LM215WF4-TRA2-6F1-A0	
C115	0CH2103K562	10NF, K, 50V, X7R, 0.9MM, 1608, R/TP	
C915,C916	0CH2104H942	0.1UF, Z, 25V, Y5V, 0.9MM, 1608, R/TP	
C51,C924	0CH2104K562	0.1UF 50V K X7R 1608 R/TP	
C79,C911	0CH2473H562	47NF, K, 25V, X7R, 0.9MM, 1608, R/TP	
C56,C57,C58,C59,C74	0CH2473K562	47NF 50V K X7R 1608 R/TP	
C36,C908	0CH2A-0007A	1U F, 10 VOLT, K PER, X5R(JB), 1608 R/TP, T=0.9(MAX)	
C50,C55	0CH2A-0010A	33NF, M, 25V, X7R, 0.9MM, 1608, R/TP	
C22,C23,C32,C33,C34	0CH2A-0011A	10U F, 16 VOLT, K PER, X5R(JB), 3216 R/TP, T=0.95(MAX)	
C101,C102,C103,C104, C105,C106,C107,C108, C109,C110,C111,C112, C113,C114,C301,C303, C305,C307,C309,C311, C77,C907	0CH2A-0015A	1UF, K, 25V, X5R, 0.9MM, 1608, R/TP	
C73	0CH2A-0017A	2.2U F, 10 VOLT, K PER, X5R(JB), 1608 R/TP, T=0.9(MAX)	
C313,C314,C315,C318, C52,C61,C62,C63,C64, C71,C72,C913,C914, C920,C921	0CH2A-0026A	10U F, 25 VOLT, K PER, X5R(JB), 3225 R/TP, T=1.0(MAX)	
C1,C2,C302,C312,C5, C6,C7,C8	0CH2A-0038A	0.1U F, 25 VOLT, Z PER, Y5V(JF), 1005 R/TP, T0.55(MAX)	
C701	0CH2A-0049A	1.5NF, 50, -10~+10(K), 1608, X7R(JB)	
C75	0CH2A-0088A	3.3NF, K, 50V, X7R, 0.9MM, 1608, R/TP	
C3,C4,C912	0CH2A-0091A	1UF, K, 25V, X5R, 0.6MM, 1005, R/TP	
D3,D4,D5	0DHZL-0008B	BAV99-7-05-F, DIODES, SOT-23, R/TP	
ZD1	0DHZL-0061A	SDZ6V2D, AUK, SOD-323, R/TP	
D6	0DHZL-0095A	RB050M-30, ROHM, PMDU, R/TP	
F1	0FFST-0002A	F0603FA2500V032T, AEM, 2.5, 32 VOLT, 1.6X0.8X0.8, SMT, CERAMIC, UL/CSA	
U3	0IDIL-0002A	AP7167-FNG-7, DIODES, ADJUST_3.3V, 1.2A, DFN3030-10, R/TP, 10	
UC2	0IIML-0004A	IML7821BE, IML, 5V~20V, 320MA, 20V/US, 40MHZ, 1CH, TSOT, R/TP, 5PIN	

U4	0ISGL-0008C	M24C04-RDW, STMICROELETRONICS, 4K, 5MS, TSSOP, R/TP, 8	
US2	0ISML-0007A	SM4025, SILICON MITUS, MONITOR, BOOST+L/S(GPM)+OP-AMP+PVCOM+DIS CHARGING,	
UC1	0ISWL-0078A	SW0640, SIW, LVDS, 6/8, 2, MINI-LVDS, 6, 1, DRD, GIP, AFRC, DGA, MUTE, MLF, TR, 68	
L1	0LCAA-0069A	TNI8016-100M, DACOWELL, 10UH, M20, 2.1A, 0.093, 8.0X11.0X1.8 (1.2MM,IN-BOARD), R/TP	
FL4,FL5,R103,R109, R118,R119,R121,R125, R126,R127,R129,R138, R139,R140,R142,R179, R180,R20,R302,R4,R54, R601,R602,R801,R802, R906,R908	0RH0000C622	0 OHM 1/16W 1608 5% D R/TP	
R131	0RH0102C422	10 OHM 1/16W 1608 1% D R/TP	
R701,R901,R902,R903	0RH0221C622	2.2 OHM 1/16W 1608 5% D R/TP	
R10,R11,R12,R13,R14, R15,R16,R17,R18,R19, R22,R23,R25,R26	0RH0302C422	30 OHM 1/16W 1608 1% D R/TP	
R322	0RH0472C422	47 OHM 1/16W 1608 1% D R/TP	
R150,R2,R3	0RH1000C422	100 OHM 1/16W 1608 1% D R/TP	
R1	0RH1001C422	1K OHM 1/16W 1608 1% D R/TP	
R24,R27,R55	0RH1002C422	10K OHM 1/16W 1608 1% D R/TP	
R123	0RH1102C422	11K OHM 1/16W 1608 1% D R/TP	
R244	0RH1202C422	12K OHM 1/16W 1608 1% D R/TP	
R151,R242,R254	0RH1502C422	15K OHM 1/16W 1608 1% D R/TP	
R114,R136,R211,R214	0RH1601C422	1.6K OHM 1/16W 1608 1% D R/TP	
R130,R234,R777	0RH1602C422	16K OHM 1/16W 1608 1% D R/TP	
R224	0RH1802C422	18K OHM 1/16W 1608 1% D R/TP	
R225,R232,R235	0RH2002C422	20K OHM 1/16W 1608 1% D R/TP	
R141	0RH2200C422	220 OHM 1/16W 1608 1% D R/TP	
R115	0RH2201C422	2.2K OHM 1/16W 1608 1% D R/TP	
R50,R51	0RH2401C422	2.4K OHM 1/16W 1608 1% D R/TP	
R222,R255,R904	0RH2402C422	24K OHM 1/16W 1608 1% D R/TP	
R261	0RH2700C422	270 OHM 1/16W 1608 1% D R/TP	
R148,R212,R213,R245	0RH3302C422	33K OHM 1/16W 1608 1% D R/TP	
R223	0RH3303C422	330K OHM 1/16W 1608 1% D R/TP	

R135,R243,R253	0RH3602C422	36K 1/16W 1% 1608	
R146	0RH3902C422	39K OHM 1/16W 1608 1% D R/TP	
R104,R106,R324,R326, R67	0RH4700C422	470 OHM 1/16W 1608 1% D R/TP	
R233	0RH4702C422	47K OHM 1/16W 1608 1% D R/TP	
R110,R132,R778,R905	0RH5101C422	5.1K OHM 1/16W 1608 1% D R/TP	
R117	0RH5102C422	51K OHM 1/16W 1608 1% D R/TP	
R122,R124,R909	0RH5601C422	5.6K OHM 1/16W 1608 1% D R/TP	
R201,R203	0RH6200C422	620 OHM 1/16W 1608 1% D R/TP	
R202	0RH6802C422	68K OHM 1/16W 1608 1% D R/TP	
R252	0RH7501C422	7.5K OHM 1 / 16 W 1608 1% D R/TP	
R21,R231,R241,R251	0RH8201C422	8.2K OHM 1/16W 1608 1% D R/TP	
R221	0RH9101C422	9.1K OHM 1/16W 1608 1% D R/TP	
R910	0RH9102C422	91K OHM 1/16W 1608 1% D R/TP	
AR3,AR4,AR5,AR6	0RHZL10005A	100OHM 5 1/16W 3216 R/TP	
Q2	0TRRL-0010A	KTA1505S-Y-RTK/H, KEC, PNP, R/TP, SOT-23, .	
Q1	0TRRL-0011A	KTC3876S-Y-RTK/H, KEC, NPN, R/TP, SOT-23, .	
FL6,FL7,FL8,FL9	6200L-J015A	BLM18PG300SN1D	
RT1	6322L-0004A	22K OHM, +-3%, 125, 0.21, 3950, 1608, R/TP	
CN1	6630L-0157B	FI-XB30SL-HF10, JAE, 30 PIN, 1 MM, ANGLE, SN, USER LOCK	
	311GL100F30DPT--01	LVDS CONN 1.0MM 30P	
	6870S-1127A	LM215WF4-TRA2-6F1-A0, 2L, 0.6T, 460.0 X 39.65, 6, J, 72, SOURCE	
M38	6091L-1301A	LM215WF4-TRA1-6F1-A0	
	6091L-1301B	LM215WF4-TRA2-6F1-A0	
	3022L-1152A	KOLON, XC210, T=0.123, LM215WF4-TRA1-6F1-A0	
	3022L-1314A	TORAY, TPL123, T=0.133, LM215WF4-TRA1-6F1-A0	
	3032L-0847A	EFUN, HGL-8B, T=0.210, ANGLE = 0?, LM215WF4-TRA1-6F1-A0	
	3550B-0696A	AL, T=0.5, LM215WF4-TRA1-6F1-A0	
	3850L-0151A	BL, YUPO, 77X21	
	4000L-0036B	SWCH18A, TAP-TITE B, PAN HEAD, M2.0, L2.5, ELECTROLESS NI	
	-4975L-0334A	LM215WF4-TRA1-6F1-A0	

	4296L-0243A	SJ CHEMICAL, SJC #101, SILICONE, GRAY, TERAOKA 767, 274.7*1.4*0.25	
	4296L-0246A	SJ CHEMICAL, SJC #101, SILICONE, GRAY, TERAOKA 767, 485*1.4*0.25	
	4974L-0639A	ENTIRE, ETR-1010, LM230WF5-TRA1-7F1-A0	
	5151L-0184A	LM215WF4-TRA1-6F1-A0	
	3034L-0788A	TORAY, 225E6QD, T=0.225, TERAOKA 7051, LM215WF4-TRA1-6F1-A0	
	3953L-0090A	TORAY, 188E60L, T=0.188, TERAOKA 7051, 482.7*1.8*0.188, LM215WF4-TRA1-6F1-A0	
	3953L-0095A	TORAY, 188E60L, T=0.188, TERAOKA 7051, 285.8*1.8*0.2, LM215WF4-TRA1-6F1-A0	
	5150L-0440A	PMMA, FLAT, 2.0, PRINTING, LM215WF4-TRA1-6F1-A0	
	6916L-0249A	WOOREE LED, 64(NUMBER OF LED), WHITE LED, LM215WF4-TRA1-6F1-A0	
	5153L-0068A	10FH-SM1-GAN-TB(LF)(SN) , JST	
	6915L-0173A	WOOREE LED, WM32NW1F, TOP VIEW, 1EA(LED CHIP Q'TY PER PKG), 3.0*2.0*0.8,	
	6920L-0041A	283.6*4.4*1.0, 4EA(NUMBER OF CHAIN), 1L(NUMBER OF LAYER), 64EA(NUMBER OF LED), AL	
	7250L-1036A	T-GLOBAL, LI-98, 282.6*3.8*0.25	
	7250L-0864A	NITTO, NITTO 5000NS, CLEAR, 30*3*0.16	
	7250L-0865A	3M, ZH350, SILVER,15*8*0.08	
	7250L-1408A	ZH350 25X16X0.1	
	756GQACB-AA099--00	MAIN BOARD-CBPCANZA1QQ	
SMTCA-U402	100GANJI000YT1	MCU ASS'Y-056G2233-11	
	801GQAEE149	L215W-TB1-TBP1-E2243FW2 LTD ASS'Y	
	0M1G-140--6125	SCREW	
	0M1G-140--8125	SCREW	
	0M1G-940--5125	.CREW	
	0M1G1730--6120	SCREW,42-D020523	
	0Q1G-140-10120	SCREW	
	A15G1327101	TILT SUPPORT BRACKET	
	A37G0188012	HINGE 21.5	
	A85G0260201	SHIELD	
	A85G0272201	SHIELD COVER	

	Q05G6131--2	SHEET	
	803GQA44077	L215W-TB1-TBP1-E2243FW2 EPS ASS'Y	
	Q44GB059101	CUSHION-REAR EPS	
	Q44GB059201	CUSHION-FRONT EPS	
	A33G1151AGS-1B0100	LENS	
	A34G2041AEO-1M0100	COVER COVER-TOP	
	A34G2042AED-3B0100	BASE TRIM	
	A34G2043AED-1B0100	HINGE FRONT COVER	
	A34G2044AED-1B0100	HINGE BACK COVER	
	A34G2096AEDJ1B0130	BEZEL L215W-TB1-TBP1	
	A34G2141AEDB1B0100	REAR COVER L215W-TB1-TBP1	
	ADPC91236YJ1	ADAPTER BOARD	
CN401	033G3802-7B--Y---L	CONN 2.0 7P	
	033G3802-7B--Y	CONNECTOR 7P 2.0 DIP	2nd source
	040G-45762412B	CBPC LABEL	
C718	067G204V181-3K	CS CAP 180UF 16V 8*8 MM	
	067G204V181-3C	CS CAP 180UF M 16V 8*8 MM	
C716	067G204V471-2K	CS CAP 470UF 10V 8*8 MM	
	067G204V471-2L	CS CAP 470UF	
C807	067G415R479-9K	EC 4.7UF 20% 100V ED 8*12	
	067G415R479-9L	EC 4.7UF 20% 100V RZW 8*12	
FB701	071G--5526A--H	CORE 6.0X3.5X3.5 127 25% 3.5X6.0	
	071G--55-26--S	FERRITE CORE	
CN603	088G-30232C	PHONE JACK 3.5MM BLACK 5PIN	
	088G-302-32-YG	HONE JACK 3.5MM 5P? BLACK	2nd source
CN701	088G-3041CF	DC JACK	
	088G-3041YG	DC POWER JACK 3P - -	2nd source
CN101	088G-35315F-HD	D-SUB CONN F ATTACHED SCREW	
	088G-35315F-XH	D-SUB 15PIN VERTICAL CONN WITH SCREW	2nd source
U401	090G6077--2-----GP	HEAT SINK	
CN409	311GW200C30AAL	WAFER 2.0MM 2*15P	
	033G804330C-HR	WAFER 2*15P 2.0PICTH	2nd source
U401	056G-562392	SCALER NT68677UMFG/E QFP-128	
U704	056G-563113	IC G1117-18T63UF 1A/1.8V SOT-223	
U705	056G-563215	IC DC/DC MP1584EN SOIC8E	
U702	056G-563512	IC G1117-33T43UF TO-252	
	056G-563204	IC G960T43UF TO-252	
U503,U504,U506,U507	056G-662-35	ESD PROTECT TVU1240R1A N/A	
	056G-662-18	IC AZ1045-04F.R7G DFN2510P10E	

U101,U103,U502,U505	056G-662504	IC ESD AOZ8902CIL 24KV 5A SOT23-6 AOS	
	056G-662-13	IC AZC099-04S SOT23-6L	
U801	056G-700--5	IC LED DRIVER MP3389EF TSSOP28	
U102,U501,U508	056G1133531	EEPROM FM24C02A-SO-T-G 2K SOP-8	
	056G1133541	EEPROM RM24C02-H0-B-R 2K SOP-8	
U601	056T-616516	IC APA2176AQBITRL TQFN3X3-16	
Q402	057G-417517	TRA LMBT3906LT1G -200MA/-40V SOT-23 LRC	
	057G-417526	SMALLTRAN MMBT3906 -0.2A -40V SOT-23	
Q302,Q701	057G-417518	TRA LMBT3904LT1G 200MA/40V SOT-23 LRC	
	057G-417525	SMALLTRAN MMBT3904 200MA 40V SOT-23	
Q301	057G-763527	FET APM2303A -30V/-4.3A SOT-23 ANPEC	
	057G-763513	P6403FMG BY NIKO-SEM	
Q806	057G-763947	MOSFET APM8005KCTRG SOP-8	
	057G-763-92	FET P8008HV 4A/80V SOP-8	
R425,R432,R442,R501, R502,R503,R504,R505, R506,R507,R509,R510, R518,R519,R520,R521, R522,R523,R524,R526, R527	061G0402000-JI	TEST ONLY RST 0402 0.05R MAX 1/16W TA-I	
	061G0402000-JT	RST CHIPR MAX0R05 1/16W TZAI YUAN	
R102,R103,R104	061G0402100-JI	TEST ONLY RST 0402 10R 5% 1/16W TA-I	
	061G0402100-JT	RST CHIP 10R 1/16W 5% TZAI YUAN	
R112,R113,R119,R120, R414,R415,R417,R440, R515,R516,R517,R533, R534,R535,R608,R706	061G0402101-JI	BEST ONLY RST 0402 100R 5% 1/16W TA-I	
	061G0402101-JT	RST CHIP 100R 1/16W 5% TZAI YUAN	
R110,R508,R511,R525, R529	061G0402102-JI	TEST ONLY RST 0402 1K 5% 1/16W TA-I	
	061G0402102-JT	RST CHIP 1K 1/16W 5% TZAI YUAN	
R305,R421,R422,R609, R702,R703,R705	061G0402103-JI	TEST ONLY RST 0402 10K 5% 1/16W TA-I	
	061G0402103-JT	RST CHIP 10K 1/16W 5% TZAI YUAN	
R306,R402,R403,R407, R418,R419,R712,R726	061G0402104-JI	TEST ONLY RST 0402 100K 5% 1/16W TA-I	
	061G0402104-JT	RST CHIP 100K 1/16W 5% TZAI YUAN	

R424	061G0402105-JI	TEST ONLY RST 0402 1M 5% 1/16W TA-I	
	061G0402105-JT	RST CHIP R 1MOHM 1/16W /-5% TZAI YUAN	
R714	061G04021201FF	RST CHIP 1.2K 1/16W 1% FENGHUA	
	061G04021201FY	RST CHIP 1.2K 1/16W 1%	
R114,R115	061G0402222-JI	TEST ONLY RST 0402 2.2K 5% 1/16W TA-I	
	061G0402222-JT	RST CHIP 2K2 1/16W 5% TZAI YUAN	
R118,R304,R514,R532, R704	061G0402223-JI	TEST ONLY RST 0402 22K 5% 1/16W TA-I	
	061G0402223-JT	RST CHIP 22K 1/16W 5% TZAI YUAN	
R727	061G0402304-JI	RST 0402 300K 5% 1/16W TA-I	
	061G0402304-JT	RST 0402 300K 5% 1/16W TZAI YUAN	
R711	061G0402333-JI	RST 0402 33K 5% 1/16W	
	061G0402333-JT	RST CHIP 33K 1/16W 5% TZAI YUAN	
R107,R108,R109	061G0402470-JI	RST 0402 47R 5% 1/16W	
	061G0402470-JT	RST CHIP 47R 1/16W 5% TZAI YUAN	
R401	061G04024700FI	RST 0402 470R 1% 1/16W	
	061G04024700FT	RST CHIP 470R 1/16W 1%	
R116,R117,R303,R405, R406,R437,R443,R512, R513,R530,R531	061G0402472-JI	TEST ONLY RST CHIP 4.7K 5% 1/16W TA-I	
	061G0402472-JT	RST CHIP 4K7 1/16W 5% TZAI YUAN	
R404,R411,R412	061G0402473-JI	TEST ONLY RST 0402 47K 5% 1/16W TA-I	
	061G0402473-JT	RST CHIP 47K 1/16W 5% TZAI YUAN	
R713	061G04026801FF	RST CHIPR 6.8K +-1% 1/16W FENGHUA	
	061G04026801FT	RST CHIPR 6K8 -1% 1/16W TZAI YUAN	
R101,R105,R106	061G0402750-JI	TEST ONLY RST 0402 75R 5% 1/16W TA-I	
	061G0402750-JT	RST CHIPR 75 OHM -5% 1/16W TZAI YUAN	
FB703,R111,R441,R444 ,R833,R839	061G0603000-JI	TEST ONLY RST 0603 0.05R MAX 1/16W TA-I	
	061G0603000-JT	RST CHIP MAX 0R05 1/10W TZAI YUAN	
R801	061G0603100-JI	RST 0603 10R 5% 1/16W TA-I	
	061G0603100-JT	RST CHIP 10R 1/10W 5% TZAI YUAN	
R819	061G06031002FI	RST 0603 10K 1% 1/10W TA-I	
	061G06031002FT	RST CHIP 10K 1/10W 1%	
R612,R613,R806,R808	061G0603102-JI	TEST ONLY RST 0603 1K 5% 1/16W TA-I	
	061G0603102-JT	RST CHIP 1K 1/10W 5% TZAI YUAN	
R804	061G0603104-JI	TEST ONLY RST 0603 100K 5% 1/16W TA-I	

	061G0603104-JT	RST CHIP 100K 1/10W 5% TZAI YUAN	
R827,R828,R829,R830	061G0603109-JI	RST 0603 1R 5% 1/10W	
	061G0603109-JT	RST CHIP 1R 1/10W 5% TZAI YUAN	
R811	061G0603151-JI	RST 0603 150R 5% 1/10W	
	061G0603151-JT	RST CHIP 150R 1/10W 5% TZAI YUAN	
R807,R810	061G0603203-JI	RST 0603 20K 5% 1/10W	
	061G0603203-JT	RST CHIP 20K 1/10W 5% TZAI YUAN	
R841,R842	061G0603229-JI	RST 0603 2.2R 5% 1/10W TA-I	
	061G0603229-JT	RST CHIPR 2.2OHM 1/10W TZAI YUAN	
R802	061G06032703FI	RST 0603 270K 1% 1/10W	
	061G06032703FT	RST CHIPR 270 KOHM 1/10W -1% TZAI YUAN	
R803	061G06035102FT	ST CIPR 51KOHM +-1% 1/10W???TZAI?YUAN???????	
	061G06035102FI	RST 0603 51K 1% 1/10W	
R607,R610	061G0603512-JI	RST 0603 5.1K 5% 1/16W TA-I	
	061G0603512-JT	RST CHIPR 5.1KOHM -5% 1/10W TZAI YUAN	
R809	061G06036801FF	RST CHIPR 6.8KOHM +-1% 1/10W FENGHUA	
	061G06036801FT	RST CHIP 6K8 1/10W 1%	
R834	061G06037502FI	RST 0603 75K 1% 1/10W TA-I	
	061G06037502FT	RST CIPR 75KOHM -1% 1/10W TZAI YUAN	
R805	061G0805304-JT	RST CHIP 300K 1/8W 5% TZAI YUAN	
	061G0805304-JF	RST CHIPR 300KOHM -5% 1/8W FENGHUA	
R813	061G12060004JT	RST CHIP MAX 0R05 1/4W TZAI YUAN	
	061G12060004JF	RST CHIPR MAX0R05 4A 1/4W FENGHUA	
R843	061G12061001FT	RST CHIPR 1KOHM +-1% 1/4W	
	061G12061001FF	RST CHIPR 1KOHM -1% 1/4W	
R812	061G12061007FT	RST 1206 0.1R 1% 1/4W	
	061G12061007FF	RST 1206 0.1R 1% 1/4W	
R301,R302	061G1206301-JT	RST CHIPR 300 OHM 1/4W TZAI YUAN	
	061G1206301-JF	RST CHIPR 300 OHM -5% 1/4W FENGHUA	
C120	065G040210232K---T	CAP CHIP 0402 1000PF 50V X7R	
C603,C604,C714	065G040210232K---Y	CAP CHIP 0402 1N 50V X7R +/-10%	
	065G040210232K---A	CAP 0402 1NF K 50V X7R	

C110,C116,C301,C304, C401,C403,C404,C406, C407,C408,C409,C410, C411,C413,C415,C418, C421,C422,C423,C426, C430,C431,C435,C502, C503,C505,C506,C609, C702,C705,C706,C708, C709,C713,C717,C721	065G040210412K---A	CAP CHIP 0402 100NF K 16V X7R	
	065G040210412K---M	CAP 0402 0.1UF 10% 16V X7R	
	065G040210412K---3	CAP CHIP 0402 100N 16V X7R 10%	
C722	065G040215131J---Y	CHIP 150PF 50V NPO YAGEO	
	065G040215131J---A	CAP CHIP 0402 150PF J 50V NPO	
C111,C112	065G040222031J---T	CAP CHIP 0402 22PF 50V NPO	
	065G040222031J---Y	CAP CHIP 0402 22P 50V NPO /-5%	
C115,C303,C424,C501, C504	065G040222415K---T	CAP CHIP 0402 220NF K 16V X5R	
	065G040222415K---A	CAP CHIP 0402 0.22UF K 16V X5R	
C427,C428	065G040247031J---Y	CAP CHIP 0402 47PF 50V NPO +/-5%	
	065G040247031J---A	CAP CHIP 0402 47PF J 50V NPO	
C102,C103,C104,C107, C108,C109	065G040247312K---T	CAP CHIP 0402 0.047UF 16V X7R	
	065G040247312K---A	8.31HIP 0402 47NF K 16V X7R	
C101,C105,C106,C117, C118,C119	065G040250931C---Y	CAP CHIP 0402 5PF 50V NPO +/-0.25PF	
	065G040250931J---A	CAP 0402 5PF J 50 NPO	
C805,C806,C809	065G060310131J---M	CAP CHIP 0603 100PF J 50V NPO	
	065G060310131J---F	CAP CHIP 0603 100PF J 50V NPO	
C710,C711,C715	065G060310232K---A	CAP CHIP 0603 1000PF K 50V X7R	
	065G060310232K---F	CAP CHIP 0603 1NF K 50V X7R	
C712,C719,C810,C812	065G060310432K---A	CAP CHIP 0603 100NF K 50V X7R	
	065G060310432K---Y	CAP CHIP 0603 0.1UF K 50V X7R	
C305,C605,C606	065G060310512K---T	CAP CHIP 0603 1UF K 16V X7R	
	065G060310512K---3	MLCC 0603 CAP 1UF K 16V X7R	
C813,C814	065G060322232K---A	CAP 0603 2.2NF K 50V X7R	
	065G060322232K---M	CAP 0603 2.2NF 10% 50V X7R	
	065G060322232K---Y	CAP CHIP 0603 2N2 50V X7R /-10%	
C607,C610	065G060322515K---T	CAP CHIP 0603 2.2UF K 16V X5R	
	065G060322515K---M	MLCC 0603 2.2UF 10% 16V X5R	
C801	065G060347412K---A	CAP CHIP 0603 470NF K 16V X7R	
	065G060347412K---Y	CAP CHIP 0603 0.47UF K 16V X7R	

C802	065G060368332K---A	CAP CHIP 0603 68NF K 50V X7R	
	065G060368332K---Y	CAP CHIP 0603 68NF K 50V X7R	
C815	065G080510131J---F	CAP CHIP 0805 100PF J 50V NPO	
	065G080510131J---Y	CAP CHIP 0805 100PF J 50V NPO	
C720	065G080510615K---T	CHIP 10UF 16V X5R 0805	
	065G080510615K---M	CAP CHIP 0805 10UF K 16V X5R	
C402,C405,C412,C414, C416,C419,C420,C425, C436,C608,C723	065G0805106A5K---T	CHIP 10UF 10V X5R 0805	
	065G0805106A5K---3	CHIP 10UF 10V X5R 10%	
C803,C804	065G080547432K---A	CAP CHIP 0805 0.47UF K 50V X7R	
	065G080547432K---Y	CAP CHIP 0805 470N 50V X7R /-10%	
C302,C704,C707	065G1206226A5K---T	CAP CHIP1206 22UF K 10V X5R	
	065G1206226A5K---M	CAP CHIP 1206 22UF K 10V X5R	
U402	070GHDCP500HDC	HDCP CODE	
FB104,FB301,FB401,FB 402,FB403,FB404,FB40 5,FB406,FB407,FB408, FB410,FB604	071G-56K121--M	CHIP BEAD	
	071G-56K121	CHIP BEAD	
FB602,FB603	071G-59C600	CHIP BEAD 60 OHM 0603 FCM1608CF-600T06	
	071G-59C600--M	CHIP BEAD 60 OHM 0603 600MA	
FB101,FB102,FB103	071G-59K190-TA	CHIP BEAD 19 OHM 500MA FCB1608KF-190T05	
L801	073G253S-98-DN	SMD CHOKE 47UH 20% 3A 64R	
	073G253S-98--X	SMD CHOKE 47UH 20% 0.064R 3SMSL12575-470	
L701	073G253S521--H	SMD CHOKE 22UH 20% 3.3A HF	
	073G253S521--M	SMD CHOKE	
CN501,CN502	088G-34019G-AV	DMI HEADER 19P	
	088G-34019G-AD	HDMI HEADER 19P - -	
	088G-34019G-AT	HDMI HEADER 19P - -	
D501,D502	093G--60518SEM	DIODE BAT54C-HAF 300MA/30V SOT-23	
D101	093G--64-42--L	DIODE LBAV70LT1G SOT-23 LRC	
X401	093G-22S-51--A	CRYSTAL 12MHZ 32P SMD-49	
ZD101,ZD501,ZD503	093G-39S-24--T	RLZ 5.6B LLDS	
D801	093G-60S907--T	DIODE 3A/100V B3100B SMB	
D701,D703,D704,D707, D708	093G3004--3	SM340A	
CN803	311GF050B10ADH	FFC CONN 0.5MM 10P	

	033G801910Y--H	FPC CONN. 0.5MM SMT 10P	2nd source
	715G4604M0C000004I	MAIN PCB FR4 DS 146X115*1.6 6	
	F40G0003615-1A	E43FW2-E943F2 POP LABEL	
	KEPCAQQR	KEY BOARD	
CN001	033G8032-7F--S--HR	CONNECTOR 7P 1.25	
U001	056G-669-15	TEST ONLY IT7230BFN	
R005,R006	061G0402000-JT	RST CHIPR MAX0R05 1/16W TZAI YUAN	
	061G0402000-JY	RST CHIPR 0 OHM -5% 1/16W YAGEO	
R004	061G0402101-JT	RST CHIP 100R 1/16W 5% TZAI YUAN	
	061G0402101-JY	RST CHIPR 100 OHM -5% 1/16W YAGEO	
R001,R002,R003	061G0402103-JT	RST CHIP 10K 1/16W 5% TZAI YUAN	
	061G0402103-JY	RST CHIPR 10KOHM -5% 1/16W YAGEO	
R007,R008,R009,R010, R011,R012	061G0402472-JT	RST CHIP 4K7 1/16W 5% TZAI YUAN	
	061G0402472-JY	RST CHIPR 4.7KOHM -5% 1/16W YAGEO	
C008	065G040210131J---Y	CAP CHIP 0402 100P 50V NPO +/-5%	
	065G040210131J---T	CAP CHIP 0402 100PF 50V NPO	
C005,C006,C007	065G040210427Z---T	CAP CHIP 0402 0.1UF 25V Y5V	
C011,C013	065G0402105A7Z---A	CAP CHIP 0402 1UF 10V Y5V	
	065G0402105A7Z---Y	CAP CHIP 0402 1UF Z 10V Y5V	
	065G0402105A7Z---3	CAP CHIP 0402 1UF Z 10V Y5V	
C003,C004	065G040212031J---Y	CAP CHIP 0402 12P 50V NPO +/-5%	
	065G040212031J---T	CAP CHIP 0402 12PF 50V J NPO	
LED001	081G--15--2-EL	LED WHITE/RED 12-22/T7R8D-D30/2C SMD	
LED002,LED003, LED004,LED005	081G-15W--1-EL	CHIP LED WHITE	
	709G4164-QS001	COMSUPTIVE ASS'Y	
E715	715G4164K01000004F	KEY PCB FR4 DS97X23X1.0MM	
	715G4164K01000004M	KEY PCB FR4 DS97X23X1.0MM	2nd source
	Q36G-600517	DUSTER CLOTH	
	Q40G-22E61539A	LABEL RATING FOR E2243FW2_E2343F2 KOREA	
	Q40G000161521A	CARTON LABEL FOR KOREA	
	Q40G000361596A	POP LABEL(WIN 7+EPEAT+EPA)	
	Q40G0003615A85	KOREA STICKER LABEL	
	Q40G0003615A97	LABEL WARNING FOR KR WHITE	
	Q41G78D1615-4A	CARD	
	Q41G78S161557A	E2243FW2/E2343F2 QSG	
	Q44GB059615-8B	AOC E2243FW2 SERIES CARTON	

	Q45G--88609197	EPE BAG	
	Q45G2010M0201A	PE BAG	
	Q52G1201--4	3M TAPE	
	Q70G22C161526C	E2243FW2 SERISE CD MANUAL	